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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

Service and Regulatory Announcements No. 144

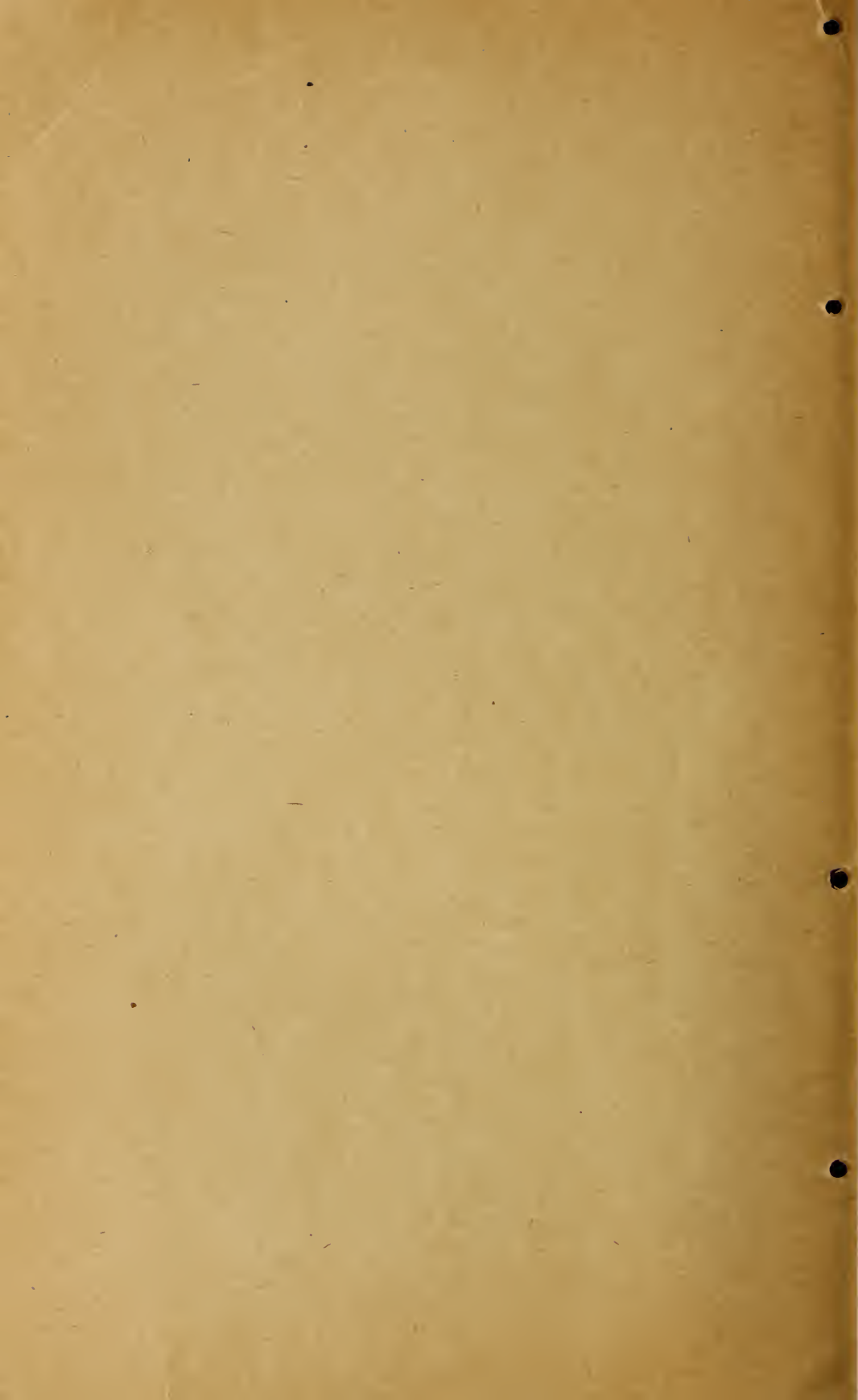


OFFICIAL GRAIN STANDARDS
OF THE
UNITED STATES

FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS,
RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR
FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND
FOR CORN AND GRAIN SORGHUMS,
EFFECTIVE SEPTEMBER 1, 1934

Issued April 1934





United States Department of Agriculture

BUREAU OF AGRICULTURAL ECONOMICS

SERVICE AND REGULATORY ANNOUNCEMENTS NO. 144

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS, RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND FOR CORN AND GRAIN SORGHUMS, EFFECTIVE SEPTEMBER 1, 1934

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BUREAU OF AGRICULTURAL ECONOMICS,
Washington, D.C., March 30, 1934.

Hon. HENRY A. WALLACE,
Secretary of Agriculture.

SIR: I have the honor to transmit, herewith, drafts of orders fixing, establishing, promulgating, and giving public notice of, the official grain standards of the United States for wheat, corn, oats, feed oats, mixed feed oats, rye, barley, grain sorghums, mixed grain, and flaxseed, under the United States Grain Standards Act of August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74). It is recommended that they be fixed, established, promulgated, and published as the official grain standards of the United States, pursuant to the authority conferred on you by said act, to be in force and effect on and after the date specified in each order, or until altered or modified hereafter by the Secretary of Agriculture.

The orders pertaining to wheat, corn, oats, feed oats, mixed feed oats, rye, grain sorghums, and barley supersede official grain standards of the United States now in effect for those grains. In the case of mixed grain and flaxseed, official grain standards of the United States have not been previously established and promulgated.

It is desirable that the new standards become effective as nearly as possible at the beginning of the new crop movement for each grain, and the orders have been so drafted that the standards for wheat, oats, feed oats, mixed feed oats, rye, barley, and mixed grain, will become effective on July 2, 1934; the standards for flaxseed on August 1, 1934; and the standards for corn and grain sorghums on September 1, 1934.

Very respectfully,

NILS A. OLSEN,
Chief of Bureau.

Approved:
SETH THOMAS,
Solicitor.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for wheat, as hereinafter described, which shall become effective on the 2d day of July, 1934, and shall thereupon supersede the official grain standards of the United States for wheat, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT¹

For the purposes of the official grain standards of the United States for wheat:

Wheat.—Wheat shall be any grain which, before the removal of dockage, consists of 50 percent or more of wheat and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term wheat in these standards shall not include emmer, spelt, einkorn, Polish wheat, and poulard wheat.

Classes.—Wheat shall be divided into seven classes, as follows: Class I, Hard Red Spring Wheat; Class II, Durum Wheat; Class III, Red Durum Wheat; Class IV, Hard Red Winter Wheat; Class V, Soft Red Winter Wheat; Class VI, White Wheat; and Class VII Mixed Wheat.

Grades.—Wheat shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

HARD RED SPRING WHEAT (CLASS I)

This class shall include all varieties of hard red spring wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (B) NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (C) RED SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels. This subclass shall also include wheat of the class Hard Red Spring Wheat consisting of more than 10 percent of the variety Humpback.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Class I, Hard Red Spring Wheat: Grade requirements for (a) Dark Northern Spring, (b) Northern Spring, (c) Red Spring

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat-damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1 Heavy ¹	60	2	0.1	1	0.5	5	2
1.....	58	2	.1	1	.5	5	2
2.....	57	4	.2	2	1.0	10	3
3.....	55	7	.5	3	2.0	10	5
4.....	53	10	1.0	5	3.0	10	10
5.....	50	15	3.0	7	5.0	10	10
Sample grade.....	Sample grade shall include wheat of the subclass Dark Northern Spring, or Northern Spring, or Red Spring, which does not come within the requirements of any of the grades from No. 1 Heavy to No. 5, inclusive; or which contains more than 16 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

¹ Applies to each of the subclasses Dark Northern Spring, Northern Spring, and Red Spring.

DURUM WHEAT (CLASS II)

This class shall include all varieties of common durum wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) HARD AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 75 percent or more of hard and vitreous kernels of amber color.

SUBCLASS (B) AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 60 percent or more but less than 75 percent of hard and vitreous kernels of amber color.

SUBCLASS (C) DURUM

This subclass shall include wheat of the class Durum Wheat consisting of less than 60 percent of hard and vitreous kernels of amber color.

RED DURUM WHEAT (CLASS III)

This class shall include all varieties of Red Durum Wheat, and may include not more than 10 percent of wheats of other classes.

Class II, Durum Wheat, and Class III, Red Durum Wheat: Grade requirements for the subclasses (a) Hard Amber Durum, (b) Amber Durum, and (c) Durum, of the class Durum Wheat, and for the class Red Durum Wheat

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat damaged	Total	Matter except other grains	Total	Soft Red Winter, White, and Red Durum, singly or combined ¹
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1-----	60	2	0.1	1	0.5	7.5	3
2-----	58	4	.2	2	1.0	10	5
3-----	56	7	.5	3	2.0	10	10
4-----	54	10	1.0	5	3.0	10	10
5-----	51	15	3.0	7	5.0	10	10
Sample grade-----	Sample grade shall include wheat of the subclass Hard Amber Durum, or Amber Durum, or Durum, or wheat of the class Red Durum Wheat, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 16 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

¹ These specifications do not apply to the class Red Durum Wheat, or to the subclass Durum.

² No. 1 Red Durum may contain 10 percent of wheats of other classes.

HARD RED WINTER WHEAT (CLASS IV)

This class shall include all varieties of Hard Red Winter Wheat, and may include not more than 10 per cent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels.

SUBCLASS (B) HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels.

SUBCLASS (C) YELLOW HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels.

WHITE WHEAT (CLASS VI)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10 percent of wheats of other classes. This class shall be divided into four subclasses, as follows:

SUBCLASS (A) HARD WHITE

This subclass shall include all wheat of the class White Wheat consisting of 75 percent or more of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (B) SOFT WHITE

This subclass shall include wheat of the class White Wheat consisting of less than 75 percent of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (C) WHITE CLUB

This subclass shall include wheat of the class White Wheat consisting of Sonora wheat or wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10 percent of common white wheat other than Sonora, either singly or in any combination.

SUBCLASS (D) WESTERN WHITE

This subclass shall include wheat of the class White Wheat which contains more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination, and which also contains more than 10 percent of common white wheat other than Sonora.

Class VI, White Wheat: Grade requirements for (a) Hard White, (b) Soft White, (c) White Club, (d) Western White

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat-damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
	Pounds	Percent	Percent	Percent	Percent	Percent	Percent
1-----	60	2	0.1	1	0.5	5	0.5
2-----	58	4	.2	2	1.0	10	1.0
3-----	56	7	.5	3	2.0	10	2.0
4-----	54	10	1.0	5	3.0	10	10.0
5-----	51	15	3.0	7	5.0	10	10.0
Sample grade-----	Sample grade shall include wheat of the subclass Hard White, or Soft White, or White Club, or Western White, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

MIXED WHEAT (CLASS VII)

This class shall include all mixtures of wheat not provided for in the classes from I to VI, inclusive.

Grade requirements and designations.—Mixed Wheat shall be graded according to the numerical and Sample grade requirements of the class of wheat which predominates in the mixture, except that the grade specifications for the factor

"wheats of other classes" and the grade specifications for "No. 1 Heavy" in the standards for hard red spring wheat, shall be disregarded.

The grade designation for Mixed Wheat shall be stated as provided in either paragraph (a) or (b) of this section:

(a) Except as specified in paragraph (b) of this section, the grade designation for Mixed Wheat shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, (2) the words "Mixed Wheat", and (3) the name and approximate percentage of each class of wheat which constitutes more than 10 percent of the mixture in the order of its predominance; but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class.

(b) **Mixed Durum.**—Mixed Durum shall be mixed wheat consisting of 70 percent or more of common durum, and may contain not more than 10 percent of Red Durum and not more than 5 percent of soft red winter and/or white wheat. The grade designation for Mixed Durum shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, and (2) the words "Mixed Durum."

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt, and any other foreign material, which can be removed readily from the wheat by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of wheat kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR WHEAT

TOUGH WHEAT

Definition.—Tough wheat shall be (a) wheat of any of the classes Hard Red Winter Wheat, Soft Red Winter Wheat, or White Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Winter Wheat, or Soft Red Winter Wheat, or White Wheat, predominates, which contains more than 14 percent but not more than 15.5 percent of moisture, and (b) wheat of any of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, predominates, which contains more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

SMUTTY WHEAT

Definition.—Smutty wheat shall be wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of wheat.

Smutty wheat shall be graded and designated according to the method described either in paragraph (a) or paragraph (b) of this section.

(a) **Smut dockage.**—Before the determination of smut dockage as provided in this paragraph, the wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty. The smut shall be removed by scouring and the loss in weight of the wheat caused by the removal of the smut shall be calculated in terms of percentage based on the total weight of the grain when free from dockage. The percentage so calculated shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The percentage of the smut dockage, so calculated and stated, shall be added to the grade designation, preceding the statement of dockage, if any.

(b) **"Light Smutty" and "Smutty."**—Smutty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty; and

(1) In the case of smutty wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty wheat which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY WHEAT

Definition.—Garlicky wheat shall be wheat which contains two or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat.

Grades.—Garlicky wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not garlicky; and

(1) In the case of garlicky wheat which contains two or more but not more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky wheat which contains more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY WHEAT

Definition.—Weevily wheat shall be wheat which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY WHEAT

Definition.—Ergoty wheat shall be wheat which contains ergot in excess of 0.3 percent.

Grades.—Ergoty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

TREATED WHEAT

Definition.—Treated wheat shall be wheat which has been scoured, limed, mashed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than wheat which is not separated from the wheat in the proper determination of dockage, except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include rye, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of wheat and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of wheat and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

Cracked kernels.—Cracked kernels shall be broken kernels of wheat and other grains remaining after the removal of dockage.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for corn, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for corn, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN ¹

For the purposes of the official grain standards of the United States for corn (maize):

Corn.—Corn shall be any grain which consists of 50 percent or more of shelled corn of the dent or flint varieties, and may contain not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Classes.—Corn shall be divided into three classes, as follows: Class I, Yellow Corn; Class II, White Corn; and Class III, Mixed Corn.

YELLOW CORN (CLASS I)

This class shall include yellow corn, and may include not more than 5 percent of corn of other colors. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as Yellow Corn.

WHITE CORN (CLASS II)

This class shall include white corn, and may include not more than 2 percent of corn of other colors. A slight tinge of light straw color or of pink on kernels of corn otherwise white shall not affect their classification as White Corn.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

MIXED CORN (CLASS III)

This class shall consist of corn of various colors that does not meet the color requirements for either of the classes Yellow Corn or White Corn. White-capped yellow kernels shall be classified as Mixed Corn.

Grades.—Corn shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class, and according to the special grades when applicable.

Corn: Grade requirements for Yellow Corn, White Corn, and Mixed Corn

Grade No.	Minimum test weight per bushel	Maximum limits of—			
		Moisture	Cracked corn and foreign material	Damaged kernels (corn and other grains)	
				Total	Heat-damaged
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1.....	54	14.0	2	3	0.1
2.....	53	15.5	3	5	.2
3.....	51	17.5	4	7	.5
4.....	48	20.0	5	10	1.0
5.....	44	23.0	7	15	3.0
Sample grade.....	Sample grade shall include corn of the class Yellow Corn, or White Corn, or Mixed Corn, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor; or which is otherwise of distinctly low quality.				

SPECIAL GRADES FOR CORN

FLINT CORN

Definition.—Flint corn shall be corn of any class which consists of more than 25 percent of flint corn.

Grades.—Flint corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint corn, and the word "Flint" shall be added to, and made a part of, the grade designation, immediately following the word Yellow, or White, or Mixed, as the case may be.

WEEVILY CORN

Definition.—Weevily corn shall be corn that is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

DEFINITIONS

Basis of grade determinations.—Each determination of class, variety, damage, and heat damage, shall be upon the basis of the grain after the removal of the cracked corn and foreign material. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Cracked corn and foreign material.—Cracked corn and foreign material shall include kernels and pieces of kernels of corn and all matter other than corn which will pass through a No. 12 sieve, and all matter other than corn remaining on such sieve after screening.

No. 12 sieve.—A metal sieve perforated with round holes $\frac{1}{4}$ inch in diameter.

Other grains.—Other grains shall include wheat, rye, oats, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, sweet corn, pop corn, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of corn and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of corn and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for barley, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for barley, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY ¹

For the purposes of the official grain standards of the United States for barley:

Barley.—Barley shall be any grain which, before the removal of dockage, consists of 50 percent or more of barley, and may contain not more than 25 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term "barley" in these standards shall not include hull-less barley.

Classes.—Barley shall be divided into four classes, as follows: Class I, Barley; Class II, Black Barley; Class III, Western Barley; and Class IV, Mixed Barley.

Grades.—Barley shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

BARLEY (CLASS I)

This class shall include all white (glumes) barley grown east of the Rocky Mountains and may include not more than 10 percent of barley of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) MALTING BARLEY

This subclass shall include 6-rowed barley of the class Barley (Class I) which meets the requirements of grades Nos. 1 to 3, inclusive, which, after the removal of dockage, contains not more than 5 percent of 2-rowed and/or other types or varieties of barley of unsuitable malting type such as Trebi and Black; which contains not more than 15 percent of barley and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.076 ($\frac{4}{64}$) of an inch wide and $\frac{3}{4}$ of an inch long; which contains not more than 5 percent of skinned and/or broken kernels; which contains not more than 4 percent of damaged barley; and shall not include Bleached barley. Barley of this subclass shall contain 75 percent or more of mellow barley kernels which kernels are not, en masse, semi-steely.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) BARLEY

This subclass shall include all barley of the class Barley which does not meet the requirements of subclass (A) Malting Barley.

BLACK BARLEY (CLASS II)

This class shall include all varieties of black (glumes) barley grown anywhere in the United States, and may include not more than 10 percent of barley of other classes.

Class I, Barley, and Class II, Black Barley: Grade requirements for subclass (a) Malting Barley and subclass (b) Barley of the class Barley, and for the class Black Barley

Grade No.	Minimum limits of—		Maximum limits of—			
	Test weight per bushel	Sound barley ¹	Heat-damaged kernels (barley, other grains, and wild oats)	Foreign material	Broken kernels	Black barley ²
	Pounds	Percent	Percent	Percent	Percent	Percent
1 ³	47	95	0.1	1	4	0.5
2 ³	46	93	.2	2	8	1.0
3 ³	43	90	.5	3	12	2.0
4 ³	40	80	1.0	4	20	5.0
5.....	35	70	3.0	6	30	10.0
Sample grade.....	Sample grade shall include barley of the subclass Barley, or of the class Black Barley, which does not come within the grade requirements of any of the grades from no. 1 to no. 5, inclusive; or which contains more than 16 percent of moisture; or which contains inseparable stones and/or cinders; or which is musty, sour, heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.					

¹ Any barley in grade No. 1 that does not come within the provisions of the special grade Blighted, may contain not more than 2 percent of blight-damaged barley; and barley in any grade from No. 2 to Sample grade, inclusive, that does not come within the provisions of the special grade Blighted, may contain not more than 4 percent of blight-damaged barley. Any barley containing more than 4 percent of blight-damaged barley shall be graded No. 1, No. 2, No. 3, No. 4, No. 5, or Sample grade, Blighted, as the case may be, as provided in the specifications for Blighted barley.

² These specifications do not apply to the class Black Barley.

³ See special requirements for subclass (A) Malting Barley.

⁴ Barley that is badly stained or materially weathered, shall not be graded higher than No. 4.

WESTERN BARLEY (CLASS III)

This class shall include white (glumes) barley grown west of the Great Plains area of the United States, and may include not more than 10 percent of barley of other classes.

Class III, Western Barley: Grade requirements for Western Barley

Grade No.	Minimum limits of sound barley	Maximum limits of—				
		Heat-damaged kernels (barley, other grains, and wild oats)	Wild oats	Foreign material	Broken kernels	Black barley
	Percent	Percent	Percent	Percent	Percent	Percent
1.....	98	0.1	1	0.5	3	0.5
2.....	96	.2	2	1.0	6	1.0
3.....	93	.3	3	2.0	10	2.0
4.....	88	.5	5	3.0	15	5.0
5.....	80	1.0	10	4.0	25	10.0
Sample grade.....	Sample grade shall include barley of the class Western Barley which does not come within the grade requirements of any of the grades from No. 1 to No. 5, inclusive, or which contains more than 15 percent of moisture; or which contains inseparable adobe, stones, and cinders, singly or combined; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which contains the seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which is otherwise of distinctly low quality.					

MIXED BARLEY (CLASS IV)

This class shall be any mixture of barley not provided for in the classes from I to III, inclusive.

Grade requirements and designations.—Mixed Barley shall be graded according to the grade requirements of either (1) the subclass Barley of the class Barley, or (2) the class Black Barley, or (3) the class Western Barley, according to which class of barley predominates in the mixture, except that all grade specifications as to the maximum percentages of black barley shall be disregarded.

The grade designation for Mixed Barley shall include successively, in the order named, the number of the grade or the words "Sample grade", as the case may be; the words "Mixed Barley", followed by the name and approximate percentage of each class of barley which constitutes 10 percent or more of the mixture in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. For Mixed Barley, in which barley of the class Western Barley predominates, the grade designation shall include a statement of the test weight per bushel immediately following the names and percentages of the classes composing the mixture.

DOCKAGE

Dockage in barley shall be determined according to the method described in paragraph (a), or paragraph (b), or paragraph (c), of this section.

(a) In the case of Barley (Class I), and Black Barley (Class II), dockage includes all matter which can be removed from the barley by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $5/64$ inch in diameter.

(b) In the case of Western Barley (Class III), dockage includes weed seeds, weed stems, chaff, straw, grain other than barley, sand, dirt, and any material other than barley, which can be removed readily from the barley by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of barley kernels removed in properly separating the foreign material and which cannot be recovered by properly rescreening or recleaning.

(c) In the case of Mixed Barley (Class IV), the dockage determination shall be made in accordance with the specifications given in paragraph (a) when barley, either of the class Barley (Class I) or barley of the class Black Barley (Class II) predominates in the mixture, or in accordance with the specifications given in paragraph (b) when barley of the class Western Barley (Class III) predominates in the mixture.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage, so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR BARLEY**TEST WEIGHT OF WESTERN BARLEY**

Grades for test weight of Western Barley.—For barley of the class Western Barley, the test weight per bushel in terms of whole pounds shall be added to, and made a part of, the grade designation, following the name of the class. A fraction of a pound shall be disregarded.

TWO-ROWED BARLEY

Definition.—Two-rowed barley shall consist of 2-rowed barley of the subclass Barley of the class Barley, or of the class Western Barley, and may contain not more than 10 percent of barley of other varieties.

Grades.—Two-rowed barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not 2-rowed, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Two-rowed."

TOUGH BARLEY

Definition.—Tough barley shall be (a) barley of either of the classes Barley or Black Barley, or of the class Mixed Barley in which barley of either one of the classes Barley or Black Barley predominates, which contains more than 14.5 percent but not more than 16 percent of moisture, and (b) barley of the class Western Barley, or of the class Mixed Barley in which barley of the class Western Barley predominates, which contains more than 13.5 percent but not more than 15 percent of moisture.

Grades.—Tough barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BRIGHT WESTERN BARLEY

Definition.—Bright Western barley shall be barley of the class Western Barley, except Bleached barley, that is of good natural color.

Grades.—Bright Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

STAINED WESTERN BARLEY

Definition.—Stained Western barley shall be barley of the class Western Barley, except Bleached barley, that is badly stained, or weathered.

Grades.—Stained Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not stained, and there shall be added to, and made a part of, the grade designation, the word "Stained."

BLIGHTED BARLEY

Definition.—Blighted barley shall be all barley which contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

SMUTTY BARLEY

Definition.—Smutty barley shall be barley which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY BARLEY

Definition.—Garlicky barley shall be barley which contains 3 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of barley.

Grades.—Garlicky barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY BARLEY

Definition.—Weevily barley shall be barley which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY BARLEY

Definition.—Ergoty barley shall be barley which contains ergot in excess of 0.3 percent.

Grades.—Ergoty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

BLEACHED BARLEY

Definition.—Bleached barley shall be barley which, in whole or in part, has been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel, as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than barley, except other grains, wild oats, and smut masses, which is not separated from the barley in the proper determination of dockage.

Other grains.—Other grains shall include wheat, rye, oats, corn, grain sorghums, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound barley.—Sound barley shall be kernels and pieces of kernels of barley remaining after the removal of dockage, which are not damaged or materially discolored by blight and/or mold, which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of barley, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for oats, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS ⁴

For the purposes of the official grain standards of the United States for oats:
Oats.—Oats shall be any grain which consists of 80 percent or more of cultivated oats. Oats may contain not more than 10 percent of wild oats.

Classes.—Oats shall be divided into five classes as follows: Class I, White Oats; Class II, Red Oats; Class III, Gray Oats; Class IV, Black Oats; and Class V, Mixed Oats. For the purpose of this classification, the characteristics of each class, except Mixed Oats, shall be based on color characteristics; White Oats shall include yellow oats; and tinges of white, brown, or black, on the kernels of any red oats variety shall not affect their classification as red oats. Oats of any class except Mixed Oats may include not more than 10 percent of cultivated oats of other classes. Mixed Oats shall be any mixture of oats which does not meet the requirements for any one of the classes White Oats, Red Oats, Gray Oats, or Black Oats.

Grades.—Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class, and according to the special grades when applicable.

Oats: Grade requirements for the classes White Oats, Red Oats, Gray Oats, Black Oats, and Mixed Oats

Grade No.	Minimum limits of—		Maximum limits of—		
	Test weight per bushel	Sound cultivated oats	Heat-damaged kernels (oats, other grains, and wild oats)	Foreign material	Wild oats
	Pounds	Percent	Percent	Percent	Percent
1 ¹ -----	32	97	0.1	2	2
2 ² -----	30	94	.3	2	3
3 ³ -----	27	90	1.0	3	5
4 ⁴ -----	24	80	3.0	5	10
Sample grade-----	Sample grade shall include oats of any one of the classes White Oats, Red Oats, Gray Oats, Black Oats, or Mixed Oats, which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contain more than 16 percent of moisture; or which contain stones and/or cinders; or which are musty, or sour, or heating, or hot; or which have any commercially objectionable foreign odor except of smut or garlic; or which contain seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which are otherwise of distinctly low quality.				

¹ The oats in grade No. 1 White Oats may contain not more than 5 percent of oats of other classes, of which not more than 3 percent may be black cultivated oats.

² The oats in grade No. 2 White Oats may contain not more than 5 percent of black cultivated oats.

³ Oats that are slightly weathered shall not be graded higher than No. 3.

⁴ Oats that are badly stained or materially weathered shall not be graded higher than No. 4.

SPECIAL GRADES FOR OATS

TOUGH OATS

Definition.—Tough oats shall be oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

HEAVY OATS

Definition.—Heavy oats shall be oats which have a test weight per bushel of 35 pounds or more but less than 38 pounds.

Grades.—Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "heavy", and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Heavy."

⁴ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

EXTRA HEAVY OATS

Definition.—Extra Heavy oats shall be oats which have a test weight per bushel of 38 pounds or more.

Grades.—Extra Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not “extra heavy”, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the words “Extra Heavy”.

BRIGHT OATS

Definition.—Bright oats shall be oats, except Bleached oats, that are of good natural color.

Grades.—Bright oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word “Bright.”

CEREAL OATS

Definition.—Cereal oats shall be any oats, whether sized, clipped, or natural, which contain more than 20 percent of oats and/or other matter that will pass through a 20-gauge metal sieve with slotted perforations 0.064 inch wide by $\frac{3}{8}$ inch long.

Grades.—Cereal oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not “cereal” oats, and there shall be added to, and made a part of, the grade designation, the word “Cereal.”

BLEACHED OATS

Definition.—Bleached oats shall be oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word “Bleached.”

WEEVILY OATS

Definition.—Weevily oats shall be oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily oats shall be graded and designated accordingly to the grade requirements of the standards applicable to such oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word “Weevily.”

SMUTTY OATS

Definition.—Smutty oats shall be oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of oats.

Grades.—Smutty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word “Smutty.”

ERGOTY OATS

Definition.—Ergoty oats shall be oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word “Ergoty.”

GARLICKY OATS

Definition.—Garlicky oats shall be oats which contain 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of oats.

Grades.—Garlicky oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include oats clippings and detached hulls.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound cultivated oats.—Sound cultivated oats shall be all kernels and pieces of kernels of cultivated oats which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS⁵

For the purposes of the official grain standards of the United States for Feed Oats:

Feed Oats.—Feed Oats shall be any grain which consists of either (a) 30 percent or more but less than 80 percent of cultivated oats, but not less than 65 percent of cultivated and wild oats combined, or (b) 80 percent or more of cultivated oats and more than 10 percent of wild oats. Feed Oats may contain not more than 25 percent of other grains, and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.—Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards, and according to the special grades when applicable.

⁵ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Feed Oats: Grade requirements for Feed Oats

Grade No	Minimum limits of—		Maximum limits of—		
	Test weight per bushel	Cultivated oats	Heat-damaged kernels (oats, wild oats, and other grains)	Foreign material	
				Total	Fine seeds
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1.....	32	60	2	3	2
2.....	29	45	4	4	3
3 ¹	26	30	6	6	4
Sample grade.....	Sample grade shall include feed oats which do not come within the requirements of any of the grades from No. 1 to No. 3, inclusive; or which contain more than 16 percent of moisture; or which are musty or sour, or heating, or hot; or which have any commercially objectionable foreign order except of smut or garlic; or which contain seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which are otherwise of distinctly low quality.				

¹ Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR FEED OATS**TOUGH FEED OATS**

Definition.—Tough Feed Oats shall be feed oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED FEED OATS

Definition.—Bleached Feed Oats shall be feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached".

WEEVILY FEED OATS

Definition.—Weevily Feed Oats shall be feed oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY FEED OATS

Definition.—Smutty Feed Oats shall be feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of feed oats.

Grades.—Smutty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY FEED OATS

Definition.—Ergoty Feed Oats shall be feed oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from feed oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{3}{16}$ inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, and other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Mixed Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS ⁶

For the purposes of the official grain standards of the United States for Mixed Feed Oats:

Mixed Feed Oats.—Mixed Feed Oats shall be any grain which consists of less than 30 percent of cultivated oats, but either (a) not less than 65 percent of cultivated and wild oats combined, or (b) not less than 65 percent of wild oats; may contain not more than 25 percent of other grains; and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.—Mixed Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards, and according to the special grades when applicable.

⁶ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Mixed Feed Oats: Grade requirements for Mixed Feed Oats

Grade No.	Minimum test weight per bushel	Maximum limits of—		
		Heat-damaged kernels (oats, wild oats, and other grains)	Foreign material	
			Total	Fine seeds
	Pounds	Percent	Percent	Percent
1.....	32	2	5	2
2.....	29	4	7	3
3.....	26	6	10	4
Sample grade.....	Sample grade shall include mixed feed oats which do not come within the requirements of any of the grades from No. 1 to No. 3, inclusive; or which contain more than 16 percent of moisture; or which are musty, or sour, or heating, or hot; or which have any commercially objectionable foreign odor except of smut or garlic; or which contain seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which are otherwise of distinctly low quality.			

¹ Mixed Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR MIXED FEED OATS**TOUGH MIXED FEED OATS**

Definition.—Tough Mixed Feed Oats shall be mixed feed oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED MIXED FEED OATS

Definition.—Bleached Mixed Feed Oats shall be mixed feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY MIXED FEED OATS

Definition.—Weevily Mixed Feed Oats shall be mixed feed oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY MIXED FEED OATS

Definition.—Smutty Mixed Feed Oats shall be mixed feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed feed oats.

Grades.—Smutty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED FEED OATS

Definition.—Ergoty Mixed Feed Oats shall be mixed feed oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; and shall include oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from from Mixed Feed Oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{3}{4}$ inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, or other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for rye, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for rye, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE ¹

For the purposes of the official grain standards of the United States for rye:

Rye.—Rye shall be any grain which, before the removal of dockage, consists of 50 percent or more of rye and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Rye shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of these standards, and according to the special grades when applicable.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Rye: Grade requirements for rye

Grade No.	Minimum test weight per bushel	Maximum limits of—			
		Damaged kernels (rye and other grains)		Foreign material	
		Total	Heat-dam- aged	Total	Foreign matter other than wheat
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1.....	56	2	0.1	3	1
2.....	54	4	.2	6	2
3.....	52	7	.5	10	4
4.....	49	15	3.0	10	6
Sample grade.....	Sample grade shall include rye which does not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contains more than 16 percent of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.				

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than rye, sand, dirt, and any other foreign material, which can be removed readily from the rye by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of rye kernels which are removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR RYE**TOUGH RYE**

Definition.—Tough rye shall be rye which contains more than 14 percent, but not more than 16 percent, of moisture.

Grades.—Tough rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY RYE

Definition.—Smutty rye shall be rye which has an unmistakable order of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of rye.

Grades.—Smutty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not smutty; and

(1) In the case of smutty rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty rye which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Smutty".

GARLICKY RYE

Definition.—Garlicky rye shall be rye which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye.

Grades.—Garlicky rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not garlicky; and

(1) In the case of garlicky rye which contains 2 or more but not more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky rye which contains more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Garlicky".

WEEVILY RYE

Definition.—Weevily rye shall be rye which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily".

ERGOTY RYE

Definition.—Ergoty rye shall be rye which contains ergot in excess of 0.3 percent.

Grades.—Ergoty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty".

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than rye, which is not separated from the rye in the proper determination of dockage, except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include wheat, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of rye and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of rye and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for grain sorghums, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for grain sorghums, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS⁸

For the purposes of the official grain standards of the United States for grain sorghums:

Grain sorghums.—Grain sorghums shall be any grain which, before the removal of dockage, consists of 50 percent or more of grain sorghums and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act, and which, after the removal of dockage and of "cracked kernels, foreign material, and other grains", contains not more than 25 percent of nongrain sorghums.

Classes.—Grain sorghums shall be divided into five classes as follows: Class I, White Grain Sorghums; Class II, Yellow Grain Sorghums; Class III, Red Grain Sorghums; Class IV, Brown Grain Sorghums; and Class V, Mixed Grain Sorghums.

Grades.—Grain sorghums shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class or subclass, and according to the special grades when applicable.

WHITE GRAIN SORGHUMS (CLASS I)

This class shall include all varieties of white grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. Colored spots upon kernels that are otherwise white shall not affect their classification as white. This class shall be divided into three subclasses as follows:

SUBCLASS (A) WHITE KAFIR

This subclass shall include grain sorghums of the white kafir type, including hegari, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) WHITE DURRA

This subclass shall include grain sorghums of the white durra type, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (C) WHITE GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class White Grain Sorghums not coming within the classification for subclass (a) White Kafir, or subclass (b) White Durra.

YELLOW GRAIN SORGHUMS (CLASS II)

This class shall include all varieties of yellow and salmon-pink grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) YELLOW MILO

This subclass shall include grain sorghums of the yellow milo type, and may include not more than 10 percent of other yellow grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

⁸ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) YELLOW GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Yellow Grain Sorghums not coming within the classification for subclass (a) Yellow Milo.

RED GRAIN SORGHUMS (CLASS III)

This class shall include all varieties of red grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) RED KAFIR

This subclass shall include grain sorghums of the red kafir type and may include not more than 10 percent of other red grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) RED GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Red Grain Sorghums not coming within the classification for subclass (a) Red Kafir.

BROWN GRAIN SORGHUMS (CLASS IV)

This class shall include all varieties of brown grain sorghums, and may include not more than 10 percent of grain sorghums of other colors.

Grain Sorghums: Grade requirements for grain sorghums

Grade No.	Minimum test weight per bushel	Maximum limits of—				
		Moisture	Damaged kernels (grain sorghums, nongrain sorghums, and other grains)		Nongrain sorghums	Total cracked kernels, foreign material, and other grains
			Total	Heat-damaged		
	Pounds	Percent	Percent	Percent	Percent	Percent
1.....	55	14	2	0.2	1	4
2.....	53	15	5	.5	3	8
3.....	51	16	10	1.0	5	12
4.....	49	18	15	3.0	10	15
Sample grade.....	Sample grade shall include grain sorghums of any class or subclass which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contain inseparable stones and/or cinders; or which are musty, or sour, or heating, or hot; or which are badly weathered; or which have any commercially objectionable foreign odor except of smut; or which are otherwise of distinctly low quality.					

MIXED GRAIN SORGHUMS (CLASS V)

This class shall include all mixtures of grain sorghums not provided for in the classes from I to IV, inclusive.

Grade requirements and designations.—The grade designation for Mixed Grain Sorghums shall include, successively, in the order named: (1) The number of the grade or the words "Sample grade", as the case may be; (2) the words "Mixed Grain Sorghums"; (3) the name and the approximate percentage of each class of grain sorghums which constitutes 10 percent or more of the mixture, in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. In those cases where Mixed Grain Sorghums consist of 70 percent or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10 percent of brown grain sorghums, the word "Mixed" shall be substituted for the words "Mixed Grain Sorghums", and the name of the appropriate subclass or subclasses for such type or types, as the case may be, shall be substituted for the class names, in the grade designation.

DOCKAGE

Dockage includes sand, dirt, finely broken kernels, weed seeds, and other foreign material, which can be removed readily from the grain sorghums by means of a metal sieve perforated with round holes $2\frac{1}{2}/64$ inch in diameter. The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage.

Dockage shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR GRAIN SORGHUMS

BRIGHT GRAIN SORGHUMS

Definition.—Bright grain sorghums shall be grain sorghums, of any class or subclass, which have good, natural color.

Grades.—Bright grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class or subclass, the word "Bright."

DISCOLORED GRAIN SORGHUMS

Definition.—Discolored grain sorghums shall be grain sorghums of any class or subclass which are discolored, but which are not badly weathered.

Grades.—Discolored grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not discolored, and there shall be added to, and made a part of, the grade designation, the word "Discolored."

WEEVILY GRAIN SORGHUMS

Definition.—Weevily grain sorghums shall be grain sorghums which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY GRAIN SORGHUMS

Definition.—Smutty grain sorghums shall be grain sorghums which have the kernels covered with smut spores, or which contain a quantity of smut masses in excess of a quantity equal to 10 masses in 50 grams of grain sorghums.

Grades.—Smutty grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

DEFINITIONS

Basis of grade determinations.—Each determination of class, subclass, non-grain sorghums, total damage, heat damage, and inseparable stones and cinders, shall be upon the basis of the grain when free from dockage and when free from "cracked kernels, foreign material, and other grains."

All other determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Other grains.—Other grains shall include wheat, rye, oats, corn, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Nongrain sorghums.—Nongrain sorghums shall include broomcorn, Sudan grass, Johnson grass, and cane seed.

Cracked kernels, foreign material, and other grains.—Cracked kernels, foreign material, and other grains, shall include kernels and pieces of kernels of grain sorghums, and all other matter except dockage that will pass through a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{3}{4}$ inch in diameter; also other grains and all other matter except grain sorghums and nongrain sorghums remaining on such sieve after screening.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which are heat damaged, sprouted, frosted, badly ground damaged, moldy, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for flaxseed, as hereinafter described, which shall become effective on the 1st day of August 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED¹

For the purposes of the official grain standards of the United States for flaxseed:

Flaxseed.—Flaxseed shall be any grain which, before the removal of dockage, consists of 50 percent or more of flaxseed and not more than 20 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Flaxseed shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards.

Flaxseed: Grade requirements for flaxseed

Grade No.	Minimum test weight per bushel	Maximum limits of damaged flaxseed
1.....	49 pounds.....	20 percent.
2.....	47 pounds.....	30 percent.
Sample grade.....	Sample grade shall include flaxseed which does not come within the requirements of either of the grades No. 1 or No. 2; or which contains fire-damaged flaxseed; or which contains more than 11 percent of moisture; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor; or which is otherwise of distinctly low quality.	

DOCKAGE

Dockage shall include all matter other than flaxseed which is contained in the lot of grain as a whole; also undeveloped, shriveled, and small pieces of flaxseed removed with the dockage and which cannot be recovered by properly rescreening or recleaning.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the flaxseed including the dockage. The percentage of dockage so calculated, when equal to one-half percent or more, shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

DEFINITIONS

Basis of grade determinations.—Each determination of test weight, moisture, damage, and "fire damaged", shall be upon the basis of the grain after the removal of that part of the dockage which can be removed readily by the use of appropriate sieves and cleaning devices. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Damaged flaxseed.—Damaged flaxseed shall be seeds and pieces of seeds of flaxseed which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Grain, as hereinafter described, which shall become effective on the 2d day of July 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN¹⁰

For the purposes of the official grain standards of the United States for Mixed Grain:

Definition.—Mixed Grain shall be any mixture of those grains for which standards have been or hereafter may be established under the provisions of the United States Grain Standards Act, that does not come within the requirements of any of the standards for such grains, and that does not contain more than 50 percent of foreign material. Wild oats in Mixed Grain shall be classed as a grain.

Grades.—Mixed Grain shall be graded and designated either as "Mixed Grain" or as "Sample grade Mixed Grain", and according to the special grades when applicable.

GRADE REQUIREMENTS

Mixed Grain (Grade).—The grade "Mixed Grain" shall include all mixed grain which does not come within the specifications for Sample grade Mixed Grain.

Sample grade Mixed Grain.—The grade "Sample grade Mixed Grain" shall include all mixed grain which contains more than 16 percent of moisture, or more

¹⁰ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

than 15 percent of damaged kernels, or more than 3 percent of heat-damaged kernels; or which is musty, or sour, or heating, or hot; or which contains stones and/or cinders; or which has any commercially objectionable foreign odor except of smut or garlic; or which has a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

GRADE DESIGNATIONS

The grade designation for Mixed Grain shall include, in the order named:

(1) The words "Mixed Grain", or the words "Sample grade Mixed Grain", as the case may be;

(2) The name and percentage of each kind of grain, including wild oats, which constitutes 10 percent or more of the mixture, in the order of predominance; and

(3) When applicable, the words "Other Grains", followed by a statement of the percentage of the combined quantity of those kinds of grain, including wild oats, each of which is present in a quantity less than 10 percent; and

(4) The words "Foreign Material", together with a statement of the percentage thereof.

All percentage statements shall be in terms of whole percent. A fraction of a percent shall be disregarded.

SPECIAL GRADES FOR MIXED GRAIN

TOUGH MIXED GRAIN

Definition.—Tough Mixed Grain shall be mixed grain which contains more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY MIXED GRAIN

Definition.—Smutty Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of mixed grain, (b) mixed grain in which oats predominate, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed grain, or (c) any mixed grain which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED GRAIN

Definition.—Ergoty Mixed Grain shall be mixed grain which contains ergot in excess of 0.3 percent.

Grades.—Ergoty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY MIXED GRAIN

Definition.—Garlicky Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of mixed grain; or (b) mixed grain in which oats or barley predominates, and which contains 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of mixed grain.

Grades.—Garlicky Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY MIXED GRAIN

Definition.—Weevily Mixed Grain shall be mixed grain which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

BLIGHTED MIXED GRAIN

Definition.—Blighted Mixed Grain shall be all mixed grain in which barley predominates, and which, as a whole, contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

TREATED MIXED GRAIN

Definition.—Treated Mixed Grain shall be mixed grain which has been scoured, limed, washed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—All determinations shall be on the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and method of use thereof described in Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture. In the determination of moisture by the method described in Department Bulletin No. 1375, the heating element shall be cut off when the thermometer shows a temperature specified for the grain which predominates in the mixture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than grains for which standards have been established under the provisions of the United States Grain Standards Act, but shall not include wild oats.

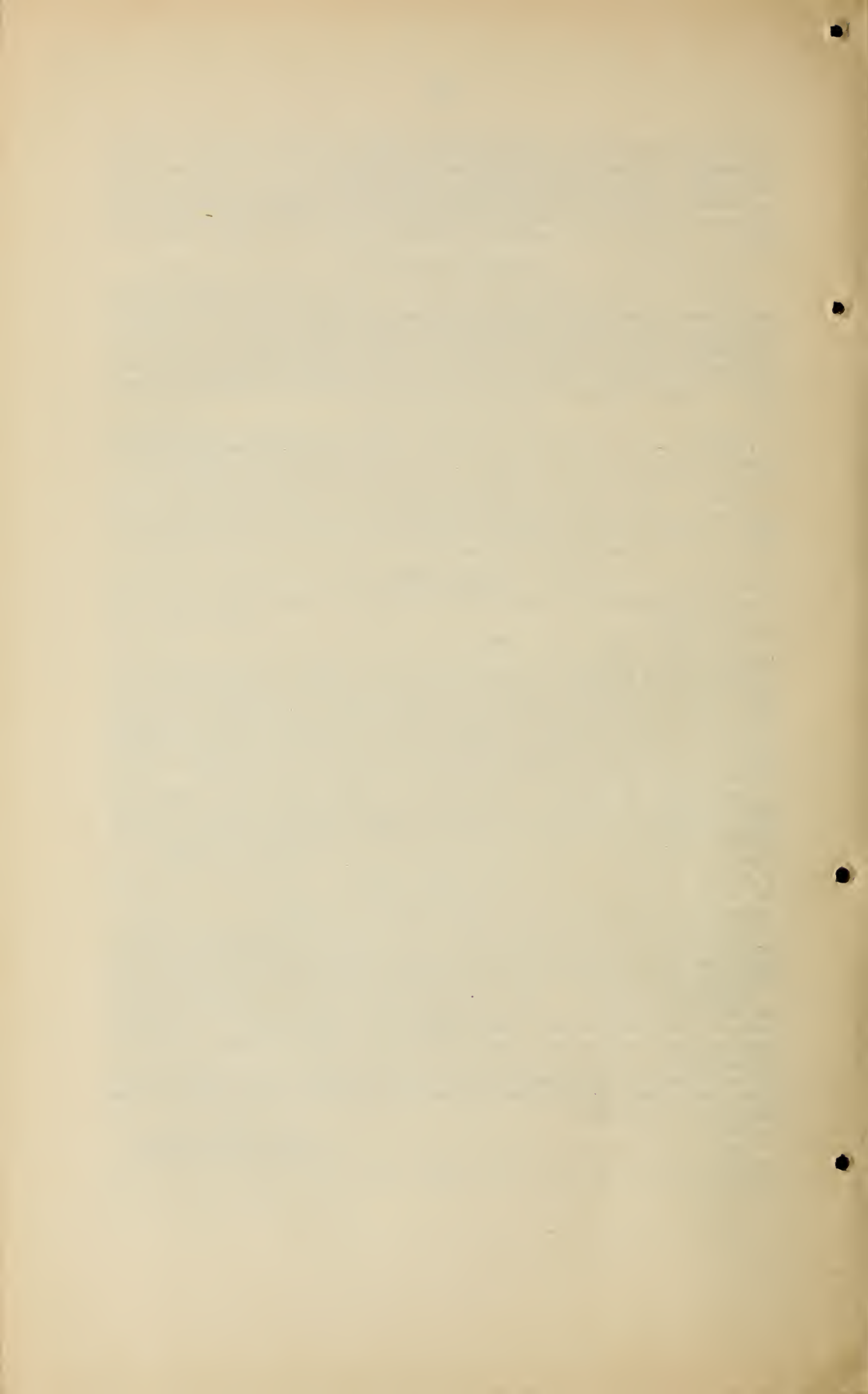
Damaged kernels.—Damaged kernels shall be all kernels and pieces of kernels of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

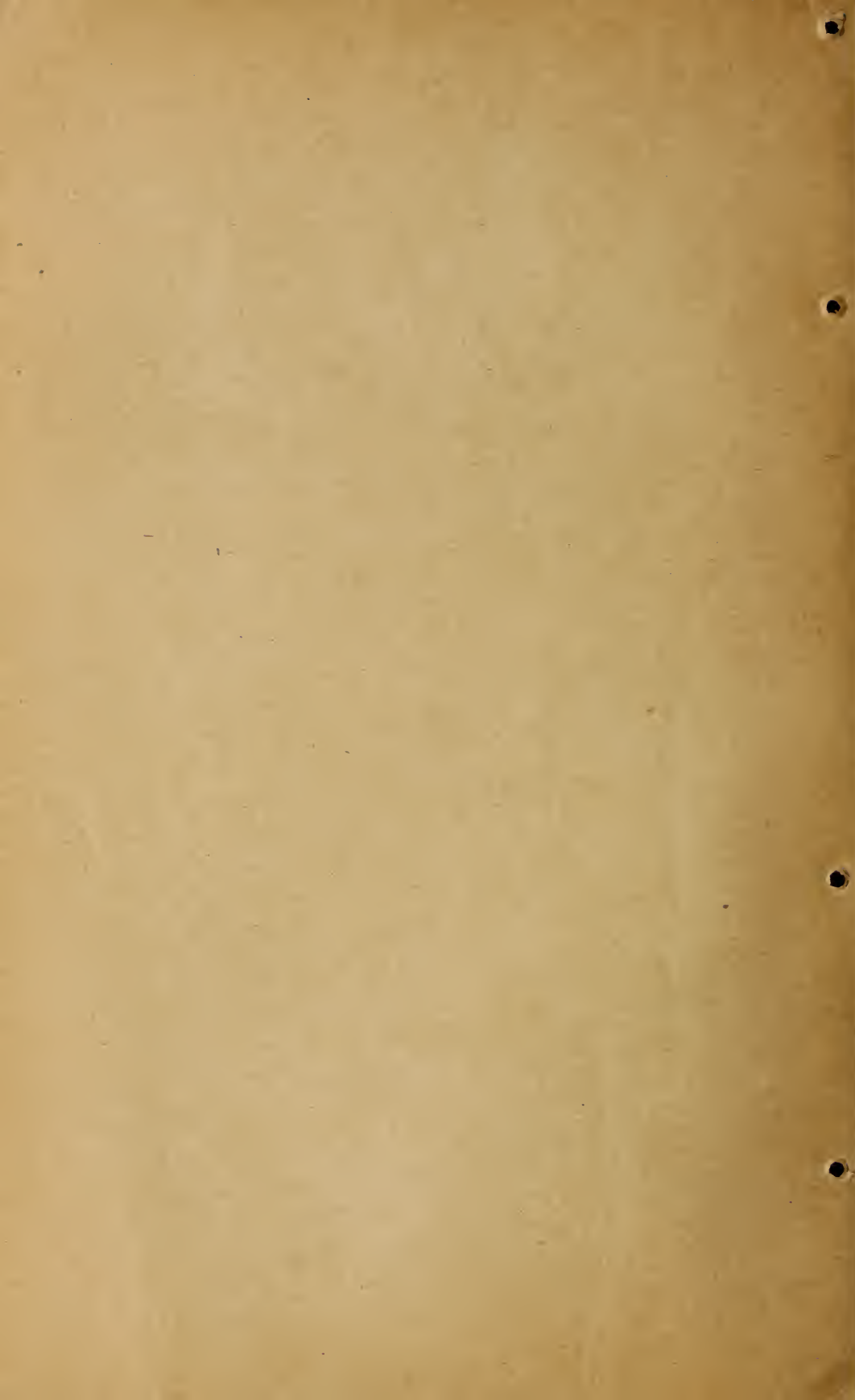
Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernel of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.





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AUG 1934

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

Service and Regulatory Announcements No. 144

OFFICIAL GRAIN STANDARDS

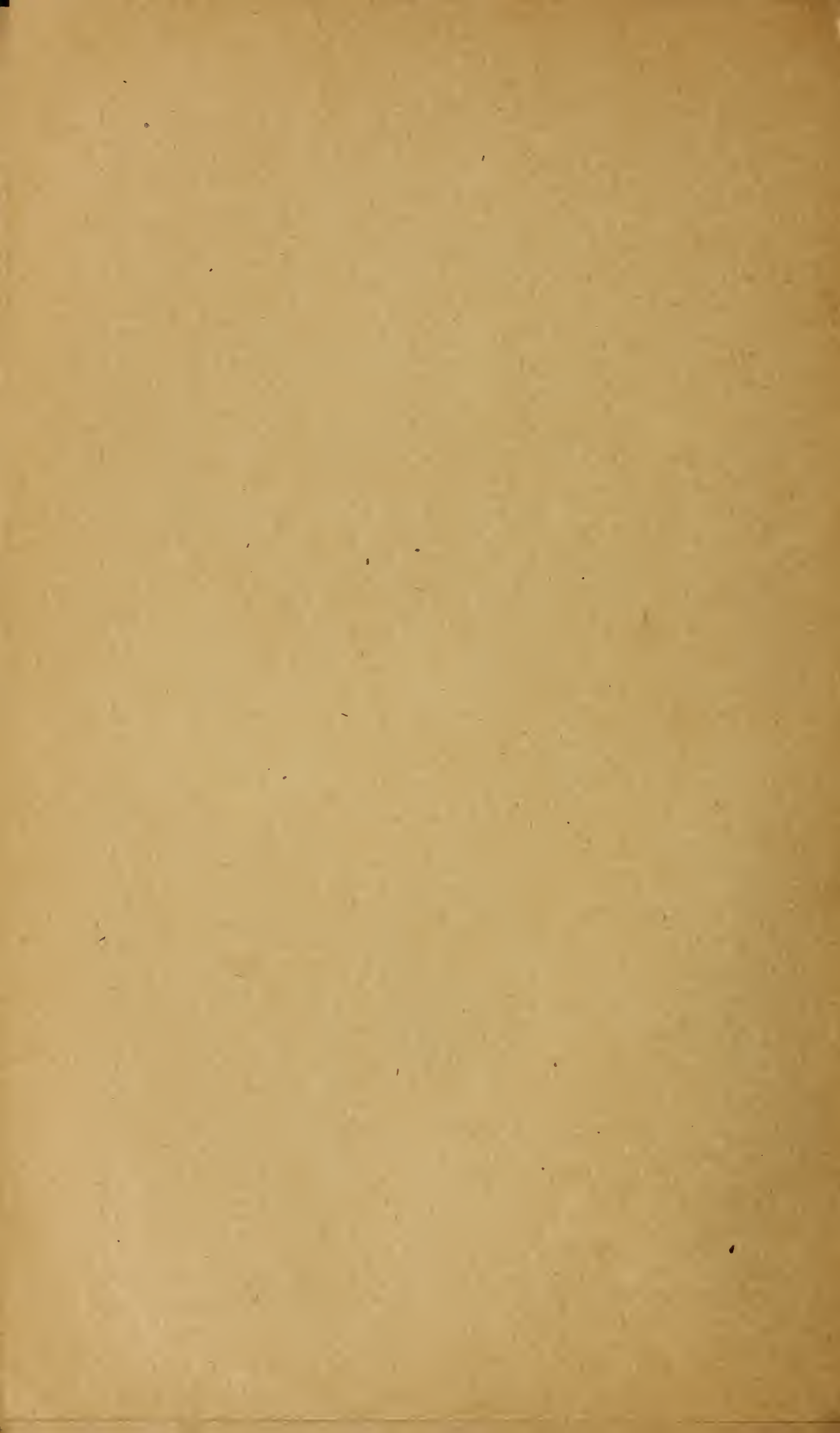
OF THE

UNITED STATES

FOR WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS,
RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR
FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND
FOR CORN AND GRAIN SORGHUMS,
EFFECTIVE SEPTEMBER 1, 1934

Issued April 1934; reissued with amendments June 1934





United States Department of Agriculture

BUREAU OF AGRICULTURAL ECONOMICS

SERVICE AND REGULATORY ANNOUNCEMENTS NO. 144

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR
WHEAT, BARLEY, OATS, FEED OATS, MIXED FEED OATS,
RYE, AND MIXED GRAIN, EFFECTIVE JULY 2, 1934; FOR
FLAXSEED, EFFECTIVE AUGUST 1, 1934; AND FOR CORN
AND GRAIN SORGHUMS, EFFECTIVE SEPTEMBER 1, 1934

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BUREAU OF AGRICULTURAL ECONOMICS,
Washington, D.C., March 30, 1934.HON. HENRY A. WALLACE,
Secretary of Agriculture.

SIR: I have the honor to transmit, herewith, drafts of orders fixing, establishing, promulgating, and giving public notice of, the official grain standards of the United States for wheat, corn, oats, feed oats, mixed feed oats, rye, barley, grain sorghums, mixed grain, and flaxseed, under the United States Grain Standards Act of August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74). It is recommended that they be fixed, established, promulgated, and published as the official grain standards of the United States, pursuant to the authority conferred on you by said act, to be in force and effect on and after the date specified in each order, or until altered or modified hereafter by the Secretary of Agriculture.

The orders pertaining to wheat, corn, oats, feed oats, mixed feed oats, rye, grain sorghums, and barley supersede official grain standards of the United States now in effect for those grains. In the case of mixed grain and flaxseed, official grain standards of the United States have not been previously established and promulgated.

It is desirable that the new standards become effective as nearly as possible at the beginning of the new crop movement for each grain, and the orders have been so drafted that the standards for wheat, oats, feed oats, mixed feed oats, rye, barley, and mixed grain, will become effective on July 2, 1934; the standards for flaxseed on August 1, 1934; and the standards for corn and grain sorghums on September 1, 1934.

Very respectfully,

NILS A. OLSEN,
*Chief of Bureau.*Approved:
SETH THOMAS,
Solicitor.

(1)

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for wheat, as hereinafter described, which shall become effective on the 2d day of July, 1934, and shall thereupon supersede the official grain standards of the United States for wheat, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR WHEAT¹

For the purposes of the official grain standards of the United States for wheat:

Wheat.—Wheat shall be any grain which, before the removal of dockage, consists of 50 percent or more of wheat and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term wheat in these standards shall not include emmer, spelt, einkorn, Polish wheat, and poulard wheat.

Classes.—Wheat shall be divided into seven classes, as follows: Class I, Hard Red Spring Wheat; Class II, Durum Wheat; Class III, Red Durum Wheat; Class IV, Hard Red Winter Wheat; Class V, Soft Red Winter Wheat; Class VI, White Wheat; and Class VII Mixed Wheat.

Grades.—Wheat shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

HARD RED SPRING WHEAT (CLASS I)

This class shall include all varieties of hard red spring wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (B) NORTHERN SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels. This subclass shall not include more than 10 percent of wheat of the variety Humpback.

SUBCLASS (C) RED SPRING

This subclass shall include wheat of the class Hard Red Spring Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels. This subclass shall also include wheat of the class Hard Red Spring Wheat consisting of more than 10 percent of the variety Humpback.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Class I, Hard Red Spring Wheat: Grade requirements for (a) Dark Northern Spring, (b) Northern Spring, (c) Red Spring

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat-damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1 Heavy ¹	60	2	0.1	1	0.5	5	2
1.....	58	2	.1	1	.5	5	2
2.....	57	4	.2	2	1.0	10	3
3.....	55	7	.5	3	2.0	10	5
4.....	53	10	1.0	5	3.0	10	10
5.....	50	15	3.0	7	5.0	10	10
Sample grade.....	Sample grade shall include wheat of the subclass Dark Northern Spring, or Northern Spring, or Red Spring, which does not come within the requirements of any of the grades from No. 1 Heavy to No. 5, inclusive; or which contains more than 16 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

¹ Applies to each of the subclasses Dark Northern Spring, Northern Spring, and Red Spring.

DURUM WHEAT (CLASS II)

This class shall include all varieties of common durum wheat, and may include not more than 10 percent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) HARD AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 75 percent or more of hard and vitreous kernels of amber color.

SUBCLASS (B) AMBER DURUM

This subclass shall include wheat of the class Durum Wheat consisting of 60 percent or more but less than 75 percent of hard and vitreous kernels of amber color.

SUBCLASS (C) DURUM

This subclass shall include wheat of the class Durum Wheat consisting of less than 60 percent of hard and vitreous kernels of amber color.

RED DURUM WHEAT (CLASS III)

This class shall include all varieties of Red Durum Wheat, and may include not more than 10 percent of wheats of other classes.

Class II, Durum Wheat, and Class III, Red Durum Wheat: Grade requirements for the subclasses (a) Hard Amber Durum, (b) Amber Durum, and (c) Durum, of the class Durum Wheat, and for the class Red Durum Wheat

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat damaged	Total	Matter except other grains	Total	Soft Red Winter, White, and Red Durum, singly or combined ¹
	Pounds	Percent	Percent	Percent	Percent	Percent	Percent
1.....	60	2	0.1	1	0.5	² 5	3
2.....	58	4	.2	2	1.0	10	5
3.....	56	7	.5	3	2.0	10	10
4.....	54	10	1.0	5	3.0	10	10
5.....	51	15	3.0	7	5.0	10	10
Sample grade.....	Sample grade shall include wheat of the subclass Hard Amber Durum, or Amber Durum, or Durum, or wheat of the class Red Durum Wheat, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 16 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

¹ These specifications do not apply to the class Red Durum Wheat, or to the subclass Durum.

² No. 1 Red Durum may contain 10 percent of wheats of other classes.

HARD RED WINTER WHEAT (CLASS IV)

This class shall include all varieties of Hard Red Winter Wheat, and may include not more than 10 per cent of wheats of other classes. This class shall be divided into three subclasses, as follows:

SUBCLASS (A) DARK HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of 75 percent or more of dark, hard, and vitreous kernels.

SUBCLASS (B) HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of more than 25 percent but less than 75 percent of dark, hard, and vitreous kernels.

SUBCLASS (C) YELLOW HARD WINTER

This subclass shall include wheat of the class Hard Red Winter Wheat consisting of not more than 25 percent of dark, hard, and vitreous kernels.

Class IV, Hard Red Winter Wheat: Grade requirements for (a) Dark Hard Winter, (b) Hard Winter, (c) Yellow Hard Winter

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat-damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1.....	60	2	0.1	1	0.5	5	1
2.....	58	4	.2	2	1.0	10	2
3.....	56	7	.5	3	2.0	10	3
4.....	54	10	1.0	5	3.0	10	10
5.....	51	15	3.0	7	5.0	10	10
Sample grade.....	Sample grade shall include wheat of the subclass Dark Hard Winter, or Hard Winter, or Yellow Hard Winter, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

SOFT RED WINTER WHEAT (CLASS V)

This class shall include all varieties of soft red winter wheat and may include not more than 10 percent of wheats of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) RED WINTER

This subclass shall include wheat of the class Soft Red Winter Wheat consisting of both light and dark colored kernels. This subclass shall not include more than 10 percent of soft red winter wheat grown west of the Great Plains area of the United States.

SUBCLASS (B) WESTERN RED

This subclass shall include wheat of the class Soft Red Winter Wheat consisting of more than 10 percent of wheat of this class grown west of the Great Plains area of the United States.

*Class V, Soft Red Winter Wheat: Grade requirements for (a) Red Winter,
(b) Western Red*

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat-damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1.....	60	2	0.1	1	0.5	5	0.5
2.....	58	4	.2	2	1.0	10	1.0
3.....	56	7	.5	3	2.0	10	2.0
4.....	54	10	1.0	5	3.0	10	10.0
5.....	51	15	3.0	7	5.0	10	10.0
Sample grade.....	Sample grade shall include wheat of the subclass Red Winter, or Western Red, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or bot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

WHITE WHEAT (CLASS VI)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10 percent of wheats of other classes. This class shall be divided into four subclasses, as follows:

SUBCLASS (A) HARD WHITE

This subclass shall include all wheat of the class White Wheat consisting of 75 percent or more of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (B) SOFT WHITE

This subclass shall include wheat of the class White Wheat consisting of less than 75 percent of hard (not soft and chalky) kernels. This subclass shall not include more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

SUBCLASS (C) WHITE CLUB

This subclass shall include wheat of the class White Wheat consisting of Sonora wheat or wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10 percent of common white wheat other than Sonora, either singly or in any combination.

SUBCLASS (D) WESTERN WHITE

This subclass shall include wheat of the class White Wheat which contains more than 10 percent of Sonora wheat or wheat of the white club varieties, either singly or in any combination, and which also contains more than 10 percent of common white wheat other than Sonora.

Class VI, White Wheat: Grade requirements for (a) Hard White, (b) Soft White, (c) White Club, (d) Western White

Grade No.	Minimum test weight per bushel	Maximum limits of—					
		Damaged kernels (wheat and other grains)		Foreign material		Wheats of other classes	
		Total	Heat-damaged	Total	Matter except other grains	Total	Durum and/or Red Durum
	Pounds	Percent	Percent	Percent	Percent	Percent	Percent
1.....	60	2	0.1	1	0.5	5	0.5
2.....	58	4	.2	2	1.0	10	1.0
3.....	56	7	.5	3	2.0	10	2.0
4.....	54	10	1.0	5	3.0	10	10.0
5.....	51	15	3.0	7	5.0	10	10.0
Sample grade.....	Sample grade shall include wheat of the subclass Hard White, or Soft White, or White Club, or Western White, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5 percent of moisture, or more than 10 percent of cracked kernels; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

MIXED WHEAT (CLASS VII)

This class shall include all mixtures of wheat not provided for in the classes from I to VI, inclusive.

Grade requirements and designations.—Mixed Wheat shall be graded according to the numerical and Sample grade requirements of the class of wheat which predominates in the mixture, except that the grade specifications for the factor

"wheats of other classes" and the grade specifications for "No. 1 Heavy" in the standards for hard red spring wheat, shall be disregarded.

The grade designation for Mixed Wheat shall be stated as provided in either paragraph (a) or (b) of this section:

(a) Except as specified in paragraph (b) of this section, the grade designation for Mixed Wheat shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, (2) the words "Mixed Wheat", and (3) the name and approximate percentage of each class of wheat which constitutes more than 10 percent of the mixture in the order of its predominance; but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class.

(b) **Mixed Durum.**—Mixed Durum shall be mixed wheat consisting of 70 percent or more of common durum, and may contain not more than 10 percent of Red Durum and not more than 5 percent of soft red winter and/or white wheat. The grade designation for Mixed Durum shall include successively, in the order named, (1) the number of the grade or the words "Sample grade", as the case may be, and (2) the words "Mixed Durum."

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt, and any other foreign material, which can be removed readily from the wheat by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of wheat kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR WHEAT

TOUGH WHEAT

Definition.—Tough wheat shall be (a) wheat of any of the classes Hard Red Winter Wheat, Soft Red Winter Wheat, or White Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Winter Wheat, or Soft Red Winter Wheat, or White Wheat, predominates, which contains more than 14 percent but not more than 15.5 percent of moisture, and (b) wheat of any of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, or of the class Mixed Wheat in which wheat of any one of the classes Hard Red Spring Wheat, or Durum Wheat, or Red Durum Wheat, predominates, which contains more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

SMUTTY WHEAT (SEE AMENDMENTS, P. 32)

Definition.—Smutty wheat shall be wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of wheat.

Smutty wheat shall be graded and designated according to the method described either in paragraph (a) or paragraph (b) of this section.

(a) **Smut dockage.**—Before the determination of smut dockage as provided in this paragraph, the wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty. The smut shall be removed by scouring and the loss in weight of the wheat caused by the removal of the smut shall be calculated in terms of percentage based on the total weight of the grain when free from dockage. The percentage so calculated shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The percentage of the smut dockage, so calculated and stated, shall be added to the grade designation, preceding the statement of dockage, if any.

(b) "Light Smutty" and "Smutty."—Smutty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty; and

(1) In the case of smutty wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty wheat which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY WHEAT

Definition.—Garlicky wheat shall be wheat which contains two or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat.

Grades.—Garlicky wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not garlicky; and

(1) In the case of garlicky wheat which contains two or more but not more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky wheat which contains more than six green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of wheat, there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY WHEAT

Definition.—Weevily wheat shall be wheat which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY WHEAT

Definition.—Ergoty wheat shall be wheat which contains ergot in excess of 0.3 percent.

Grades.—Ergoty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

TREATED WHEAT

Definition.—Treated wheat shall be wheat which has been scoured, limed, washed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than wheat which is not separated from the wheat in the proper determination of dockage, except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include rye, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of wheat and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of wheat and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

Cracked kernels.—Cracked kernels shall be broken kernels of wheat and other grains remaining after the removal of dockage.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for corn, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for corn, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR CORN ²

For the purposes of the official grain standards of the United States for corn (maize):

Corn.—Corn shall be any grain which consists of 50 percent or more of shelled corn of the dent or flint varieties, and may contain not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Classes.—Corn shall be divided into three classes, as follows: Class I, Yellow Corn; Class II, White Corn; and Class III, Mixed Corn.

YELLOW CORN (CLASS I)

This class shall include yellow corn, and may include not more than 5 percent of corn of other colors. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as Yellow Corn.

WHITE CORN (CLASS II)

This class shall include white corn, and may include not more than 2 percent of corn of other colors. A slight tinge of light straw color or of pink on kernels of corn otherwise white shall not affect their classification as White Corn.

² The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

MIXED CORN (CLASS III)

This class shall consist of corn of various colors that does not meet the color requirements for either of the classes Yellow Corn or White Corn. White-capped yellow kernels shall be classified as Mixed Corn.

Grades.—Corn shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class, and according to the special grades when applicable.

Corn: Grade requirements for Yellow Corn, White Corn, and Mixed Corn

Grade No.	Minimum test weight per bushel	Maximum limits of—			
		Moisture	Cracked corn and foreign material	Damaged kernels (corn and other grains)	
				Total	Heat-damaged
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1.....	54	14.0	2	3	0.1
2.....	53	15.5	3	5	.2
3.....	51	17.5	4	7	.5
4.....	48	20.0	5	10	1.0
5.....	44	23.0	7	15	3.0
Sample grade.....	Sample grade shall include corn of the class Yellow Corn, or White Corn, or Mixed Corn, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor; or which is otherwise of distinctly low quality.				

SPECIAL GRADES FOR CORN

FLINT CORN

Definition.—Flint corn shall be corn of any class which consists of more than 25 percent of flint corn.

Grades.—Flint corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint corn, and the word "Flint" shall be added to, and made a part of, the grade designation, immediately following the word Yellow, or White, or Mixed, as the case may be.

WEEVILY CORN

Definition.—Weevily corn shall be corn that is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

DEFINITIONS

Basis of grade determinations.—Each determination of class, variety, damage, and heat damage, shall be upon the basis of the grain after the removal of the cracked corn and foreign material. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Cracked corn and foreign material.—Cracked corn and foreign material shall include kernels and pieces of kernels of corn and all matter other than corn which will pass through a No. 12 sieve, and all matter other than corn remaining on such sieve after screening.

No. 12 sieve.—A metal sieve perforated with round holes $\frac{13}{64}$ inch in diameter.

Other grains.—Other grains shall include wheat, rye, oats, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, sweet corn, pop corn, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of corn and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of corn and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for barley, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for barley, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR BARLEY ³

For the purposes of the official grain standards of the United States for barley:

Barley.—Barley shall be any grain which, before the removal of dockage, consists of 50 percent or more of barley, and may contain not more than 25 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act. The term "barley" in these standards shall not include hull-less barley.

Classes.—Barley shall be divided into four classes, as follows: Class I, Barley; Class II, Black Barley; Class III, Western Barley; and Class IV, Mixed Barley.

Grades.—Barley shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

BARLEY (CLASS I)

This class shall include all white (glumes) barley grown east of the Rocky Mountains and may include not more than 10 percent of barley of other classes. This class shall be divided into two subclasses, as follows:

SUBCLASS (A) MALTING BARLEY

This subclass shall include 6-rowed barley of the class Barley (Class I) which meets the requirements of grades Nos. 1 to 3, inclusive, which, after the removal of dockage, contains not more than 5 percent of 2-rowed and/or other types or varieties of barley of unsuitable malting type such as Trebi and Black; which contains not more than 15 percent of barley and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.076 ($\frac{47}{64}$) of an inch wide and $\frac{3}{4}$ of an inch long; which contains not more than 5 percent of skinned and/or broken kernels; which contains not more than 4 percent of damaged barley; and shall not include Bleached barley. Barley of this subclass shall contain 75 percent or more of mellow barley kernels which kernels are not, en masse, semi-steely.

³ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) BARLEY

This subclass shall include all barley of the class Barley which does not meet the requirements of subclass (A) Malting Barley.

BLACK BARLEY (CLASS II)

This class shall include all varieties of black (glumes) barley grown anywhere in the United States, and may include not more than 10 percent of barley of other classes.

Class I, Barley, and Class II, Black Barley: Grade requirements for subclass (a) Malting Barley and subclass (b) Barley of the class Barley, and for the class Black Barley

Grade No.	Minimum limits of—		Maximum limits of—				
	Test weight per bushel	Sound barley ¹	Heat-damaged kernels (barley, other grains, and wild oats)	Foreign material	Broken kernels	Black barley ²	
	Pounds	Percent	Percent	Percent	Percent	Percent	
1 ³	47	95	0.1	1	4		0.5
2 ³	46	93	.2	2	8		1.0
3 ³	43	90	.5	3	12		2.0
4 ⁴	40	80	1.0	4	20		5.0
5.....	35	70	3.0	6	30		10.0
Sample grade.....	Sample grade shall include barley of the subclass Barley, or of the class Black Barley, which does not come within the grade requirements of any of the grades from no. 1 to no. 5, inclusive; or which contains more than 16 percent of moisture; or which contains inseparable stones and/or cinders; or which is musty, sour, heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.						

¹ Any barley in grade No. 1 that does not come within the provisions of the special grade Blighted, may contain not more than 2 percent of blight-damaged barley; and barley in any grade from No. 2 to Sample grade, inclusive, that does not come within the provisions of the special grade Blighted, may contain not more than 4 percent of blight-damaged barley. Any barley containing more than 4 percent of blight-damaged barley shall be graded No. 1, No. 2, No. 3, No. 4, No. 5, or Sample grade, Blighted, as the case may be as provided in the specifications for Blighted barley.

² These specifications do not apply to the class Black Barley.

³ See special requirements for subclass (A) Malting Barley.

⁴ Barley that is badly stained or materially weathered, shall not be graded higher than No. 4.

WESTERN BARLEY (CLASS III)

This class shall include white (glumes) barley grown west of the Great Plains area of the United States, and may include not more than 10 percent of barley of other classes.

Class III, Western Barley: Grade requirements for Western Barley

Grade No.	Minimum limits of sound barley	Maximum limits of—				
		Heat-damaged kernels (barley, other grains, and wild oats)	Wild oats	Foreign material	Broken kernels	Black barley
	Percent	Percent	Percent	Percent	Percent	Percent
1.....	98	0.1	1	0.5	3	0.5
2.....	96	.2	2	1.0	6	1.0
3.....	93	.3	3	2.0	10	2.0
4.....	88	.5	5	3.0	15	5.0
5.....	80	1.0	10	4.0	25	10.0
Sample grade.....	Sample grade shall include barley of the class Western Barley which does not come within the grade requirements of any of the grades from No. 1 to No. 5, inclusive, or which contains more than 15 percent of moisture; or which contains inseparable adobe, stones, and cinders, singly or combined; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which contains the seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which is otherwise of distinctly low quality.					

MIXED BARLEY (CLASS IV)

This class shall be any mixture of barley not provided for in the classes from I to III, inclusive.

Grade requirements and designations.—Mixed Barley shall be graded according to the grade requirements of either (1) the subclass Barley of the class Barley, or (2) the class Black Barley, or (3) the class Western Barley, according to which class of barley predominates in the mixture, except that all grade specifications as to the maximum percentages of black barley shall be disregarded.

The grade designation for Mixed Barley shall include successively, in the order named, the number of the grade or the words "Sample grade", as the case may be; the words "Mixed Barley", followed by the name and approximate percentage of each class of barley which constitutes 10 percent or more of the mixture in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. For Mixed Barley, in which barley of the class Western Barley predominates, the grade designation shall include a statement of the test weight per bushel immediately following the names and percentages of the classes composing the mixture.

DOCKAGE

Dockage in barley shall be determined according to the method described in paragraph (a), or paragraph (b), or paragraph (c), of this section.

(a) In the case of Barley (Class I), and Black Barley (Class II), dockage includes all matter which can be removed from the barley by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{5}{64}$ inch in diameter.

(b) In the case of Western Barley (Class III), dockage includes weed seeds, weed stems, chaff, straw, grain other than barley, sand, dirt, and any material other than barley, which can be removed readily from the barley by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of barley kernels removed in properly separating the foreign material and which cannot be recovered by properly rescreening or recleaning.

(c) In the case of Mixed Barley (Class IV), the dockage determination shall be made in accordance with the specifications given in paragraph (a) when barley, either of the class Barley (Class I) or barley of the class Black Barley (Class II) predominates in the mixture, or in accordance with the specifications given in paragraph (b) when barley of the class Western Barley (Class III) predominates in the mixture.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage, so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR BARLEY**TEST WEIGHT OF WESTERN BARLEY**

Grades for test weight of Western Barley.—For barley of the class Western Barley, the test weight per bushel in terms of whole pounds shall be added to, and made a part of, the grade designation, following the name of the class. A fraction of a pound shall be disregarded.

TWO-ROWED BARLEY

Definition.—Two-rowed barley shall consist of 2-rowed barley of the subclass Barley of the class Barley, or of the class Western Barley, and may contain not more than 10 percent of barley of other varieties.

Grades.—Two-rowed barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not 2-rowed, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Two-rowed."

TOUGH BARLEY

Definition.—Tough barley shall be (a) barley of either of the classes Barley or Black Barley, or of the class Mixed Barley in which barley of either one of the classes Barley or Black Barley predominates, which contains more than 14.5 percent but not more than 16 percent of moisture, and (b) barley of the class Western Barley, or of the class Mixed Barley in which barley of the class Western Barley predominates, which contains more than 13.5 percent but not more than 15 percent of moisture.

Grades.—Tough barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BRIGHT WESTERN BARLEY

Definition.—Bright Western barley shall be barley of the class Western Barley, except Bleached barley, that is of good natural color.

Grades.—Bright Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

STAINED WESTERN BARLEY

Definition.—Stained Western barley shall be barley of the class Western Barley, except Bleached barley, that is badly stained, or weathered.

Grades.—Stained Western barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not stained, and there shall be added to, and made a part of, the grade designation, the word "Stained."

BLIGHTED BARLEY

Definition.—Blighted barley shall be all barley which contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

SMUTTY BARLEY

Definition.—Smutty barley shall be barley which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

GARLICKY BARLEY

Definition.—Garlicky barley shall be barley which contains 3 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of barley.

Grades.—Garlicky barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY BARLEY

Definition.—Weevily barley shall be barley which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

ERGOTY BARLEY

Definition.—Ergoty barley shall be barley which contains ergot in excess of 0.3 percent.

Grades.—Ergoty barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

BLEACHED BARLEY

Definition.—Bleached barley shall be barley which, in whole or in part, has been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached barley shall be graded and designated according to the grade requirements of the standards applicable to such barley if it were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel, as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than barley, except other grains, wild oats, and smut masses, which is not separated from the barley in the proper determination of dockage.

Other grains.—Other grains shall include wheat, rye, oats, corn, grain sorghums, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound barley.—Sound barley shall be kernels and pieces of kernels of barley remaining after the removal of dockage, which are not damaged or materially discolored by blight and/or mold, which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of barley, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for oats, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR OATS ¹

For the purposes of the official grain standards of the United States for oats:
Oats.—Oats shall be any grain which consists of 80 percent or more of cultivated oats. Oats may contain not more than 10 percent of wild oats.

Classes.—Oats shall be divided into five classes as follows: Class I, White Oats; Class II, Red Oats; Class III, Gray Oats; Class IV, Black Oats; and Class V, Mixed Oats. For the purpose of this classification, the characteristics of each class, except Mixed Oats, shall be based on color characteristics; White Oats shall include yellow oats; and tinges of white, brown, or black, on the kernels of any red oats variety shall not affect their classification as red oats. Oats of any class except Mixed Oats may include not more than 10 percent of cultivated oats of other classes. Mixed Oats shall be any mixture of oats which does not meet the requirements for any one of the classes White Oats, Red Oats, Gray Oats, or Black Oats.

Grades.—Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class, and according to the special grades when applicable.

Oats: Grade requirements for the classes White Oats, Red Oats, Gray Oats, Black Oats, and Mixed Oats

Grade No.	Minimum limits of—		Maximum limits of—		
	Test weight per bushel	Sound cultivated oats	Heat-damaged kernels (oats, other grains, and wild oats)	Foreign material	Wild oats
	Pounds	Percent	Percent	Percent	Percent
1 ¹	32	97	0.1	2	2
2 ²	30	94	.3	2	3
3 ³	27	90	1.0	3	5
4 ⁴	24	80	3.0	5	10
Sample grade.....	Sample grade shall include oats of any one of the classes White Oats, Red Oats, Gray Oats, Black Oats, or Mixed Oats, which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contain more than 16 percent of moisture; or which contain stones and/or cinders; or which are musty, or sour, or heating, or hot; or which have any commercially objectionable foreign odor except of smut or garlic; or which contain seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which are otherwise of distinctly low quality.				

¹ The oats in grade No. 1 White Oats may contain not more than 5 percent of oats of other classes, of which not more than 3 percent may be black cultivated oats.

² The oats in grade No. 2 White Oats may contain not more than 5 percent of black cultivated oats.

³ Oats that are slightly weathered shall not be graded higher than No. 3.

⁴ Oats that are badly stained or materially weathered shall not be graded higher than No. 4.

SPECIAL GRADES FOR OATS

TOUGH OATS

Definition.—Tough oats shall be oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

HEAVY OATS

Definition.—Heavy oats shall be oats which have a test weight per bushel of 35 pounds or more but less than 38 pounds.

Grades.—Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "heavy", and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Heavy."

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

EXTRA HEAVY OATS

Definition.—Extra Heavy oats shall be oats which have a test weight per bushel of 38 pounds or more.

Grades.—Extra Heavy oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "extra heavy", and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the words "Extra Heavy".

BRIGHT OATS

Definition.—Bright oats shall be oats, except Bleached oats, that are of good natural color.

Grades.—Bright oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class, the word "Bright."

CEREAL OATS

Definition.—Cereal oats shall be any oats, whether sized, clipped, or natural, which contain more than 20 percent of oats and/or other matter that will pass through a 20-gauge metal sieve with slotted perforations 0.064 inch wide by $\frac{3}{8}$ inch long.

Grades.—Cereal oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not "cereal" oats, and there shall be added to, and made a part of, the grade designation, the word "Cereal."

BLEACHED OATS

Definition.—Bleached oats shall be oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY OATS

Definition.—Weevily oats shall be oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY OATS

Definition.—Smutty oats shall be oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of oats.

Grades.—Smutty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY OATS

Definition.—Ergoty oats shall be oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY OATS

Definition.—Garlicky oats shall be oats which contain 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of oats.

Grades.—Garlicky oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include oats clippings and detached hulls.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Sound cultivated oats.—Sound cultivated oats shall be all kernels and pieces of kernels of cultivated oats which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, other grains, and wild oats, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FEED OATS⁵

For the purposes of the official grain standards of the United States for Feed Oats:

Feed Oats.—Feed Oats shall be any grain which consists of either (a) 30 percent or more but less than 80 percent of cultivated oats, but not less than 65 percent of cultivated and wild oats combined, or (b) 80 percent or more of cultivated oats and more than 10 percent of wild oats. Feed Oats may contain not more than 25 percent of other grains, and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.—Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards, and according to the special grades when applicable.

⁵ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Feed Oats: Grade requirements for Feed Oats

Grade No.	Minimum limits of—		Maximum limits of—			
	Test weight per bushel	Cultivated oats	Heat-damaged kernels (oats, wild oats, and other grains)	Foreign material		
				Total	Fine seeds	
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	
1.....	32	60	2	3		2
2.....	29	45	4	4		3
3 ¹	26	30	6	6		4
Sample grade.....	Sample grade shall include feed oats which do not come within the requirements of any of the grades from No. 1 to No. 3, inclusive; or which contain more than 16 percent of moisture; or which are musty or sour, or heating, or hot; or which have any commercially objectionable foreign odor except of smut or garlic; or which contain seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which are otherwise of distinctly low quality.					

¹ Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR FEED OATS**TOUGH FEED OATS**

Definition.—Tough Feed Oats shall be feed oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED FEED OATS

Definition.—Bleached Feed Oats shall be feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached".

WEEVILY FEED OATS

Definition.—Weevily Feed Oats shall be feed oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY FEED OATS

Definition.—Smutty Feed Oats shall be feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of feed oats.

Grades.—Smutty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY FEED OATS

Definition.—Ergoty Feed Oats shall be feed oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; but shall include oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from feed oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{3}{4}$ inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, and other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Feed Oats, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for Mixed Feed Oats, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED FEED OATS ⁶

For the purposes of the official grain standards of the United States for Mixed Feed Oats:

Mixed Feed Oats.—Mixed Feed Oats shall be any grain which consists of less than 30 percent of cultivated oats, but either (a) not less than 65 percent of cultivated and wild oats combined, or (b) not less than 65 percent of wild oats; may contain not more than 25 percent of other grains; and may contain not more than 10 percent of foreign material, which 10 percent may include not more than 5 percent of fine seeds.

Grades.—Mixed Feed Oats shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards, and according to the special grades when applicable.

⁶ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Mixed Feed Oats: Grade requirements for Mixed Feed Oats

Grade No.	Minimum test weight per bushel	Maximum limits of—		
		Heat-damaged kernels (oats, wild oats, and other grains)	Foreign material	
			Total	Fine seeds
	Pounds	Percent	Percent	Percent
1	32	2	5	2
2	29	4	7	3
3 ¹	26	6	10	4
Sample grade	Sample grade shall include mixed feed oats which do not come within the requirements of any of the grades from No. 1 to No. 3, inclusive; or which contain more than 16 percent of moisture; or which are musty, or sour, or heating, or hot; or which have any commercially objectionable foreign odor except of smut or garlic; or which contain seeds of wild brome grasses of a character and in a quantity sufficient to cause the grain to be of low quality for feeding purposes; or which are otherwise of distinctly low quality.			

¹ Mixed Feed Oats that are badly stained or materially weathered, shall not be graded higher than No. 3.

SPECIAL GRADES FOR MIXED FEED OATS**TOUGH MIXED FEED OATS**

Definition.—Tough Mixed Feed Oats shall be mixed feed oats which contain more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough."

BLEACHED MIXED FEED OATS

Definition.—Bleached Mixed Feed Oats shall be mixed feed oats which, in whole or in part, have been treated by the use of sulphurous acid or any other bleaching agent.

Grades.—Bleached Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not bleached, and there shall be added to, and made a part of, the grade designation, the word "Bleached."

WEEVILY MIXED FEED OATS

Definition.—Weevily Mixed Feed Oats shall be mixed feed oats which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY MIXED FEED OATS

Definition.—Smutty Mixed Feed Oats shall be mixed feed oats which contain balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed feed oats.

Grades.—Smutty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED FEED OATS

Definition.—Ergoty Mixed Feed Oats shall be mixed feed oats which contain ergot in excess of 0.3 percent.

Grades.—Ergoty Mixed Feed Oats shall be graded and designated according to the grade requirements of the standards applicable to such mixed feed oats if they were not ergoty, and there shall be added to, and made a part of, the grade designation, the word “Ergoty.”

DEFINITIONS

Basis of grade determinations.—All determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter except kernels and pieces of kernels of cultivated oats, other grains, and wild oats; and shall include oats clippings and detached hulls.

Fine seeds.—Fine seeds shall include all matter which can be removed from Mixed Feed Oats by the use of a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{3}{4}$ inch in diameter.

Other grains.—Other grains shall include wheat, rye, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of cultivated oats, wild oats, or other grains, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for rye, as hereinafter described, which shall become effective on the 2d day of July 1934, and shall thereupon supersede the official grain standards of the United States for rye, and any amendments thereto, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR RYE ¹

For the purposes of the official grain standards of the United States for rye:

Rye.—Rye shall be any grain which, before the removal of dockage, consists of 50 percent or more of rye and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Rye shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of these standards, and according to the special grades when applicable.

¹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

Rye: Grade requirements for rye

Grade No.	Minimum test weight per bushel	Maximum limits of—			
		Damaged kernels (rye and other grains)		Foreign material	
		Total	Heat-damaged	Total	Foreign matter other than wheat
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1-----	56	2	0.1	3	1
2-----	54	4	.2	6	2
3-----	52	7	.5	10	4
4-----	49	15	3.0	10	6
Sample grade-----	Sample grade shall include rye which does not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contains more than 16 percent of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.				

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than rye, sand, dirt, and any other foreign material, which can be removed readily from the rye by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled, and small pieces of rye kernels which are removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR RYE**TOUGH RYE**

Definition.—Tough rye shall be rye which contains more than 14 percent, but not more than 16 percent, of moisture.

Grades.—Tough rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY RYE (SEE AMENDMENTS, P. 32)

Definition.—Smutty rye shall be rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of rye.

Grades.—Smutty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not smutty; and

(1) In the case of smutty rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty rye which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Smutty".

GARLICKY RYE

Definition.—Garlicky rye shall be rye which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye.

Grades.—Garlicky rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not garlicky; and

(1) In the case of garlicky rye which contains 2 or more but not more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Garlicky"; and

(2) In the case of garlicky rye which contains more than 6 green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Garlicky".

WEEVILY RYE

Definition.—Weevily rye shall be rye which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily".

ERGOTY RYE

Definition.—Ergoty rye shall be rye which contains ergot in excess of 0.3 percent.

Grades.—Ergoty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty".

DEFINITIONS

Basis of grade determinations.—Each determination of dockage, temperature, odor, garlic, and live weevils or other insects injurious to stored grain, shall be upon the basis of the grain as a whole. All other determinations shall be upon the basis of the grain when free from dockage.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than rye, which is not separated from the rye in the proper determination of dockage, except that smut balls shall not be considered as foreign material.

Other grains.—Other grains shall include wheat, oats, corn, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of rye and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of rye and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, chap. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for grain sorghums, as hereinafter described, which shall become effective on the 1st day of September 1934, and shall thereupon supersede the official grain standards of the United States for grain sorghums, as previously promulgated under said act:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR GRAIN SORGHUMS^{*}

For the purposes of the official grain standards of the United States for grain sorghums:

Grain sorghums.—Grain sorghums shall be any grain which, before the removal of dockage, consists of 50 percent or more of grain sorghums and not more than 10 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act, and which, after the removal of dockage and of "cracked kernels, foreign material, and other grains", contains not more than 25 percent of nongrain sorghums.

Classes.—Grain sorghums shall be divided into five classes as follows: Class I, White Grain Sorghums; Class II, Yellow Grain Sorghums; Class III, Red Grain Sorghums; Class IV, Brown Grain Sorghums; and Class V, Mixed Grain Sorghums.

Grades.—Grain sorghums shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of their appropriate class or subclass, and according to the special grades when applicable.

WHITE GRAIN SORGHUMS (CLASS I)

This class shall include all varieties of white grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. Colored spots upon kernels that are otherwise white shall not affect their classification as white. This class shall be divided into three subclasses as follows:

SUBCLASS (A) WHITE KAFIR

This subclass shall include grain sorghums of the white kafir type, including hegari, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) WHITE DURRA

This subclass shall include grain sorghums of the white durra type, and may include not more than 10 percent of other white grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (C) WHITE GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class White Grain Sorghums not coming within the classification for subclass (a) White Kafir, or subclass (b) White Durra.

YELLOW GRAIN SORGHUMS (CLASS II)

This class shall include all varieties of yellow and salmon-pink grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) YELLOW MILO

This subclass shall include grain sorghums of the yellow milo type, and may include not more than 10 percent of other yellow grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

^{*} The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

SUBCLASS (B) YELLOW GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Yellow Grain Sorghums not coming within the classification for subclass (a) Yellow Milo.

RED GRAIN SORGHUMS (CLASS III)

This class shall include all varieties of red grain sorghums, and may include not more than 10 percent of grain sorghums of other colors. This class shall be divided into two subclasses as follows:

SUBCLASS (A) RED KAFIR

This subclass shall include grain sorghums of the red kafir type and may include not more than 10 percent of other red grain sorghums, grain sorghums of other colors, or nongrain sorghums of other colors, singly or in any combination.

SUBCLASS (B) RED GRAIN SORGHUMS

This subclass shall include all grain sorghums of the class Red Grain Sorghums not coming within the classification for subclass (a) Red Kafir.

BROWN GRAIN SORGHUMS (CLASS IV)

This class shall include all varieties of brown grain sorghums, and may include not more than 10 percent of grain sorghums of other colors.

Grain Sorghums: Grade requirements for grain sorghums

Grade No.	Minimum test weight per bushel	Maximum limits of—				
		Moisture	Damaged kernels (grain sorghums, nongrain sorghums, and other grains)		Nongrain sorghums	Total cracked kernels, foreign material, and other grains
			Total	Heat-damaged		
	Pounds	Percent	Percent	Percent	Percent	Percent
1.....	55	14	2	0.2	1	4
2.....	53	15	5	.5	3	8
3.....	51	16	10	1.0	5	12
4.....	49	18	15	3.0	10	15
Sample grade.....	Sample grade shall include grain sorghums of any class or subclass which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive; or which contain inseparable stones and/or cinders; or which are musty, or sour, or heating, or hot; or which are badly weathered; or which have any commercially objectionable foreign odor except of smut; or which are otherwise of distinctly low quality.					

MIXED GRAIN SORGHUMS (CLASS V)

This class shall include all mixtures of grain sorghums not provided for in the classes from I to IV, inclusive.

Grade requirements and designations.—The grade designation for Mixed Grain Sorghums shall include, successively, in the order named: (1) The number of the grade or the words "Sample grade", as the case may be; (2) the words "Mixed Grain Sorghums"; (3) the name and the approximate percentage of each class of grain sorghums which constitutes 10 percent or more of the mixture, in the order of its predominance, but if only one class exceeds 10 percent of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class. In those cases where Mixed Grain Sorghums consist of 70 percent or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10 percent of brown grain sorghums, the word "Mixed" shall be substituted for the words "Mixed Grain Sorghums", and the name of the appropriate subclass or subclasses for such type or types, as the case may be, shall be substituted for the class names, in the grade designation.

DOCKAGE

Dockage includes sand, dirt, finely broken kernels, weed seeds, and other foreign material, which can be removed readily from the grain sorghums by means of a metal sieve perforated with round holes $2\frac{1}{2}/64$ inch in diameter. The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage.

Dockage shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

SPECIAL GRADES FOR GRAIN SORGHUMS

BRIGHT GRAIN SORGHUMS

Definition.—Bright grain sorghums shall be grain sorghums, of any class or subclass, which have good, natural color.

Grades.—Bright grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not bright, and there shall be added to, and made a part of, the grade designation, preceding the name of the class or subclass, the word "Bright."

DISCOLORED GRAIN SORGHUMS

Definition.—Discolored grain sorghums shall be grain sorghums of any class or subclass which are discolored, but which are not badly weathered.

Grades.—Discolored grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not discolored, and there shall be added to, and made a part of, the grade designation, the word "Discolored."

WEEVILY GRAIN SORGHUMS

Definition.—Weevily grain sorghums shall be grain sorghums which are infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

SMUTTY GRAIN SORGHUMS

Definition.—Smutty grain sorghums shall be grain sorghums which have the kernels covered with smut spores, or which contain a quantity of smut masses in excess of a quantity equal to 10 masses in 50 grams of grain sorghums.

Grades.—Smutty grain sorghums shall be graded and designated according to the grade requirements of the standards applicable to such grain sorghums if they were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

DEFINITIONS

Basis of grade determinations.—Each determination of class, subclass, non-grain sorghums, total damage, heat damage, and inseparable stones and cinders, shall be upon the basis of the grain when free from dockage and when free from "cracked kernels, foreign material, and other grains."

All other determinations shall be upon the basis of the lot of grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Other grains.—Other grains shall include wheat, rye, oats, corn, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, and soybeans.

Nongrain sorghums.—Nongrain sorghums shall include broomcorn, Sudan grass, Johnson grass, and cane seed.

Cracked kernels, foreign material, and other grains.—Cracked kernels, foreign material, and other grains, shall include kernels and pieces of kernels of grain sorghums, and all other matter except dockage that will pass through a metal sieve perforated with equilateral triangular perforations the inscribed circles of which are $\frac{3}{64}$ inch in diameter; also other grains and all other matter except grain sorghums and nongrain sorghums remaining on such sieve after screening.

Damaged kernels.—Damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which are heat damaged, sprouted, frosted, badly ground damaged, moldy, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of grain sorghums, nongrain sorghums, and other grains which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for flaxseed, as hereinafter described, which shall become effective on the 1st day of August 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR FLAXSEED⁹

For the purposes of the official grain standards of the United States for flaxseed: **Flaxseed.**—Flaxseed shall be any grain which, before the removal of dockage, consists of 50 percent or more of flaxseed and not more than 20 percent of other grains for which standards have been established under the provisions of the United States Grain Standards Act.

Grades.—Flaxseed shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of these standards.

Flaxseed: Grade requirements for flaxseed

Grade No.	Minimum test weight per bushel	Maximum limits of damaged flaxseed
1.....	49 pounds.....	20 percent.
2.....	47 pounds.....	30 percent.
Sample grade.....	Sample grade shall include flaxseed which does not come within the requirements of either of the grades No. 1 or No. 2; or which contains fire-damaged flaxseed; or which contains more than 11 percent of moisture; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor; or which is otherwise of distinctly low quality.	

DOCKAGE

Dockage shall include all matter other than flaxseed which is contained in the lot of grain as a whole; also undeveloped, shriveled, and small pieces of flaxseed removed with the dockage and which cannot be recovered by properly rescreening or recleaning.

⁹ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the flaxseed including the dockage. The percentage of dockage so calculated, when equal to one-half percent or more, shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.

DEFINITIONS

Basis of grade determinations.—Each determination of test weight, moisture, damage, and "fire damaged", shall be upon the basis of the grain after the removal of that part of the dockage which can be removed readily by the use of appropriate sieves and cleaning devices. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and the method of use thereof described in Department Bulletin No. 1375, issued by the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Damaged flaxseed.—Damaged flaxseed shall be seeds and pieces of seeds of flaxseed which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

ORDER ESTABLISHING OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, standards of quality and condition for Mixed Grain, as hereinafter described, which shall become effective on the 2d day of July 1934:

OFFICIAL GRAIN STANDARDS OF THE UNITED STATES FOR MIXED GRAIN ¹⁰

For the purposes of the official grain standards of the United States for Mixed Grain:

Definition.—Mixed Grain shall be any mixture of those grains for which standards have been or hereafter may be established under the provisions of the United States Grain Standards Act, that does not come within the requirements of any of the standards for such grains, and that does not contain more than 50 percent of foreign material. Wild oats in Mixed Grain shall be classed as a grain.

Grades.—Mixed Grain shall be graded and designated either as "Mixed Grain" or as "Sample grade Mixed Grain", and according to the special grades when applicable.

GRADE REQUIREMENTS

Mixed Grain (Grade).—The grade "Mixed Grain" shall include all mixed grain which does not come within the specifications for Sample grade Mixed Grain.

Sample grade Mixed Grain.—The grade "Sample grade Mixed Grain" shall include all mixed grain which contains more than 16 percent of moisture, or more

¹⁰ The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

than 15 percent of damaged kernels, or more than 3 percent of heat-damaged kernels; or which is musty, or sour, or heating, or hot; or which contains stones and/or cinders; or which has any commercially objectionable foreign odor except of smut or garlic; or which has a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

GRADE DESIGNATIONS

The grade designation for Mixed Grain shall include, in the order named:

(1) The words "Mixed Grain", or the words "Sample grade Mixed Grain", as the case may be;

(2) The name and percentage of each kind of grain, including wild oats, which constitutes 10 percent or more of the mixture, in the order of predominance; and

(3) When applicable, the words "Other Grains", followed by a statement of the percentage of the combined quantity of those kinds of grain, including wild oats, each of which is present in a quantity less than 10 percent; and

(4) The words "Foreign Material", together with a statement of the percentage thereof.

All percentage statements shall be in terms of whole percent. A fraction of a percent shall be disregarded.

SPECIAL GRADES FOR MIXED GRAIN

TOUGH MIXED GRAIN

Definition.—Tough Mixed Grain shall be mixed grain which contains more than 14.5 percent but not more than 16 percent of moisture.

Grades.—Tough Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not tough, and there shall be added to, and made a part of, the grade designation, the word "Tough".

SMUTTY MIXED GRAIN (SEE AMENDMENT P. 33)

Definition.—Smutty Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 10 balls of average size in 250 grams of mixed grain, (b) mixed grain in which oats predominate, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed grain, or (c) any mixed grain which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

ERGOTY MIXED GRAIN

Definition.—Ergoty Mixed Grain shall be mixed grain which contains ergot in excess of 0.3 percent.

Grades.—Ergoty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not ergoty, and there shall be added to, and made a part of, the grade designation, the word "Ergoty."

GARLICKY MIXED GRAIN

Definition.—Garlicky Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains 2 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 1,000 grams of mixed grain; or (b) mixed grain in which oats or barley predominates, and which contains 4 or more green garlic bulblets, or an equivalent quantity of dry or partly dry bulblets, in 500 grams of mixed grain.

Grades.—Garlicky Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not garlicky, and there shall be added to, and made a part of, the grade designation, the word "Garlicky."

WEEVILY MIXED GRAIN

Definition.—Weevily Mixed Grain shall be mixed grain which is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

BLIGHTED MIXED GRAIN

Definition.—Blighted Mixed Grain shall be all mixed grain in which barley predominates, and which, as a whole, contains more than 4 percent of barley damaged or materially discolored by blight and/or mold.

Grades.—Blighted Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not blighted, and there shall be added to, and made a part of, the grade designation, the word "Blighted."

TREATED MIXED GRAIN

Definition.—Treated Mixed Grain shall be mixed grain which has been scoured, limed, washed, sulphured, or treated in such a manner that its true quality is not reflected by either the numerical grade or the Sample grade designation, alone.

Grades.—Treated Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not treated, and there shall be added to, and made a part of, the grade designation, a statement indicating the kind of treatment.

DEFINITIONS

Basis of grade determinations.—All determinations shall be on the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of moisture.—Percentage of moisture shall be that ascertained by the moisture tester and method of use thereof described in Bulletin No. 1375, issued by the United States Department of Agriculture, or that ascertained by any device and method which give equivalent results in the determination of moisture. In the determination of moisture by the method described in Department Bulletin No. 1375, the heating element shall be cut off when the thermometer shows a temperature specified for the grain which predominates in the mixture.

Test weight per bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 18, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Foreign material.—Foreign material shall include all matter other than grains for which standards have been established under the provisions of the United States Grain Standards Act, but shall not include wild oats.

Damaged kernels.—Damaged kernels shall be all kernels and pieces of kernels of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernel of those grains for which standards have been established under the provisions of the United States Grain Standards Act, which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 31st day of March 1934.

[SEAL]

H. A. WALLACE,
Secretary of Agriculture.

AMENDMENTS TO GRADES FOR SMUTTY WHEAT, SMUTTY RYE, AND SMUTTY MIXED GRAIN

(Effective July 25, 1934)

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, the following change, which shall become effective on the 25th day of July 1934, in the official grain standards of the United States for wheat as heretofore promulgated by the Secretary of Agriculture.

Amend the Special Grades for Smutty Wheat to read as follows:

SMUTTY WHEAT

Definition.—Smutty wheat shall be wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls of average size in 250 grams of wheat.

Smutty wheat shall be graded and designated according to the method described either in paragraph (a) or paragraph (b) of this section.

(a) **Smut dockage.**—Before the determination of smut dockage as provided in this paragraph, the wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty. The smut shall be removed by scouring and the loss in weight of the wheat caused by the removal of the smut shall be calculated in terms of percentage based on the total weight of the grain when free from dockage. The percentage so calculated shall be stated in terms of half percent, whole percent, or whole and half percent, as the case may be. A fraction of a half percent shall be disregarded. The percentage of the smut dockage, so calculated and stated, shall be added to the grade designation, preceding the statement of dockage, if any.

(b) **“Light Smutty” and “Smutty.”**—Smutty wheat shall be graded and designated according to the grade requirements of the standards applicable to such wheat if it were not smutty; and

(1) In the case of smutty wheat which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the words “Light Smutty”; and

(2) In the case of smutty wheat which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of wheat, there shall be added to, and made a part of, the grade designation, the word “Smutty.”

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 26th day of April 1934.

[SEAL.]

H. A. WALLACE,
Secretary of Agriculture.

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, the following change, which shall become effective on the 25th day of July 1934, in the official grain standards of the United States for rye as heretofore promulgated by the Secretary of Agriculture.

Amend the Special Grades for Smutty Rye to read as follows:

SMUTTY RYE

Definition.—Smutty rye shall be rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls of average size in 250 grams of rye.

Grades.—Smutty rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not smutty; and

(1) In the case of smutty rye which has an unmistakable odor of smut, or which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls but not in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the words "Light Smutty"; and

(2) In the case of smutty rye which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of rye, there shall be added to, and made a part of, the grade designation, the word "Smutty."

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 26th day of April 1934.

[SEAL.]

H. A. WALLACE,
Secretary of Agriculture.

Pursuant to the authority vested in the Secretary of Agriculture by the United States Grain Standards Act, approved August 11, 1916 (U.S. Code, title 7, ch. 3, sec. 74), I, H. A. WALLACE, Secretary of Agriculture, do hereby fix, establish, promulgate, and give public notice of, the following change, which shall become effective on the 25th day of July 1934, in the official grain standards of the United States for mixed grain as heretofore promulgated by the Secretary of Agriculture.

Amend the Special Grades for Smutty Mixed Grain to read as follows:

SMUTTY MIXED GRAIN

Definition.—Smutty Mixed Grain shall be (a) mixed grain in which wheat or rye predominates, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 14 balls of average size in 250 grams of mixed grain, (b) mixed grain in which oats predominate, and which contains balls, portions of balls, or spores, of smut, in excess of a quantity equal to 30 balls of average size in 250 grams of mixed grain, or (c) any mixed grain which has the kernels covered with smut spores, or which contains smut masses in excess of 0.2 percent.

Grades.—Smutty Mixed Grain shall be graded and designated according to the grade requirements of the standards applicable to such mixed grain if it were not smutty, and there shall be added to, and made a part of, the grade designation, the word "Smutty."

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed, in the city of Washington, this the 26th day of April 1934.

[SEAL.]

H. A. WALLACE,
Secretary of Agriculture.

